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Sustainable Cooperative Invasive Species Management Areas (CISMAs) for Effective Management on Military Bases and Adjacent Lands across Florida

FINAL REPORT

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The Nature Conservancy Florida Chapter

June 2012

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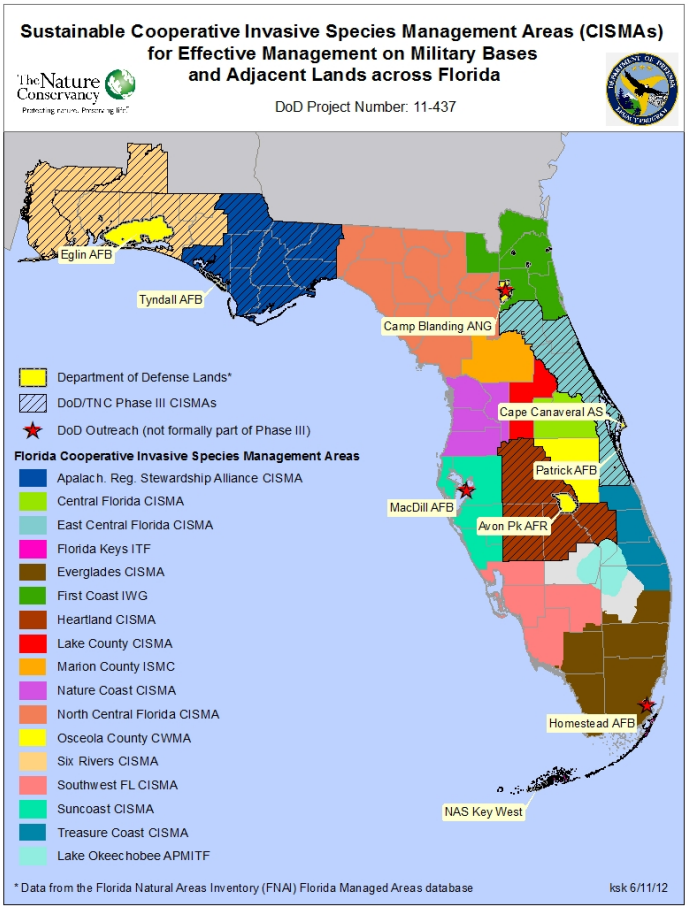

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Acknowledgement

We greatly appreciate the Department of Defense (DoD) Legacy Resource Management Program for their support of this highly successful invasive non-native species project for three years from 2009-2012. We recognize Eglin Air Force Base (AFB) as the lead military installation for their vision and commitment, confident that this project provided a clear path to implement tasks to effectively manage invasive non-native species issues to buffer installations and provide military flexibility. Along with Eglin AFB as the lead base, we recognize all of the installations officially involved in the project for their extensive efforts including: Avon Park Air Force Range (AFR), Naval Air Station (NAS) Key West, Camp Blanding Army National Guard (ANG), Cape Canaveral Air Force Station (AFS), Patrick AFB, and Tyndall AFB. It is also essential to acknowledge the city, county, state and federal agencies, non-governmental organizations, private landowners, and volunteers that have contributed countless hours to the overall effectiveness of this project including assistance from the members of the Florida Invasive Species Partnership (FISP). Last, but not least, to thank the staff from The Nature Conservancy (TNC), who initially coordinated the networking, managed the on-the-ground sites, and generated the products required to transfer leaderships and to become a sustainable model for the benefit of others. The dedicated efforts of DoD, public and private partners, and volunteers have proven measurably that with mutually beneficial goals and plans, shared-resources are available and can be leveraged for long-term success for invasive non-native species management.

Background

This DoD Legacy Resource Management Program invasive non-native species pilot project, beginning in 2009 and concluding in 2012, was entered into by The Nature Conservancy (TNC), with Eglin Air Force Base (AFB) as the lead military installation, and with generous funding support provided by the DoD Legacy Program, to collectively address the threat of invasive non-native species within Florida military installation boundaries, watersheds, and on adjacent lands. In three years, this project has evolved from creating, to expanding, to sustaining Cooperative Invasive Species Management Areas (CISMAs), proving this is an efficient and effective way to combat the threat of invasive non-native plant and animal species. This highly successful CISMA project now includes and/or supports all of the military installations and branches in Florida, regional public and private partners, and the Florida Invasive Species Partnership (FISP).

The Florida military installations involved in this project by submitting official Letters of Support to the DoD Legacy Program and actively participating in the project included: Eglin AFB, Tyndall AFB, Camp Blanding Army National Guard (ANG), Avon Park Air Force Range (AFR), Cape Canaveral Air Force Station (AFS)/Patrick AFB, and Naval Air Station (NAS) Key West. The Florida CISMAs officially involved as coordinators with the DoD installations and all partners included respectively, Six Rivers CISMA, Apalachicola Regional Stewardship Alliance CISMA, First Coast Invasives Working Group, Heartland CISMA, East Central Florida CISMA and the Keys CISMA. In addition to the official military partners this project benefitted numerous other installations such as NAS Pensacola, NAS Whiting Field, Hurlburt Field, Homestead AFB, MacDill AFB, and many outlying fields.

The partner agencies and organizations contributing considerable funding and in-kind services for this project are difficult to capture without risk of accidently overlooking some, but to show the

breadth of the involvement by others the following were included, but were not limited to: U.S. Fish and Wildlife Service (USFWS), U.S. Forest Service (USFS), Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FWC), Florida Forest Service (FFS), Florida Department of Transportation (FDOT), Florida Water Management Districts, University of Florida (UF), University of Georgia (UGA), Florida Exotic Pest Plant Council (FLEPPC), Florida Invasive Species Partnership (FISP), and many county, city, and local agencies and groups.

The critical, global threat that invasive non-native species pose to biological diversity is nowhere more evident than in Florida. At this time, roughly 30% of Florida's plant species are not native: at least 124 (10%) of these species are now negatively impacting native plant species and communities. There are also over 400 exotic wildlife species in Florida, 125 of which are established and "not likely to go away." Invasive species pose a continuous threat to DoD installations and surrounding lands even after the threat of habitat destruction has been averted via land acquisition, easement, or designation. Studies have shown that invasive species are contributing to the decline of nearly 50% of the 1,880 federally listed, threatened and endangered species. In Florida, greater than 50% of roughly 520 state listed, threatened and endangered plant species are threatened by invasive non-native species.

Invasive non-native species have been identified by all of the DoD installations as both ecological and economic threats to the natural communities they manage and to military mission flexibility. Effective actions for addressing the threat of invasive non-native species must occur at many levels within agencies and on-the-ground. Preventing the occurrence of new invasive non-native species introductions is the most effective and efficient approach. Once an invasive species begins to establish in a location, early detection and rapid response (EDRR) efforts must occur to preclude development of large infestations. Achieving success with this approach requires communication and cooperation across boundaries and fence lines, as well as creating effective regional partnerships.

This partnership approach is the foundation of the development of Cooperative Invasive Species Management Areas (CISMAs). CISMAs effectively work on both private and public lands, buffering DoD installations from the invasive non-native species threats beyond their boundaries. The CISMAs involved in this project, on and adjacent to DoD lands, as a result of DoD Legacy Program and partner funding, are now more effectively monitoring and controlling invasive non-native species resulting in improved mission flexibility and imperiled species protection. The overall objective of this project was to build strong organizations that created a unified voice to work across boundaries, pool limited resources, manage, eradicate, and reduce spreading and re-infestation of invasive non-native species on DoD lands from public and private lands and rights-of-ways.

CISMA Project Benefits

The benefits of the Florida CISMA DoD Legacy Program Project are both measured and immeasurable, as an example of how highly effective projects and extensive regional partnerships assume "lives of their own" from the combined efforts of all of the partners and volunteers involved. While this DoD Legacy Program Project has been completed, the CISMAs will continue to thrive and improve for long-term management issues with invasive non-native species. This three year DoD Legacy Program project provided the following benefits for DoD and all involved, as it:

- Directly engaged six military installations and three service branches including: Air Force, Army, and Navy and provided invasive non-native species control and guidance for improved mission flexibility and imperiled species management,
- Was in accordance with three Areas of Emphasis for the DoD Legacy Natural Resource Program: 1) Invasive Species 2) Communication, Partnerships, and Public Awareness, and 3) Cooperative Conservation,
- Included lands where DoD was currently working and the local military installations had identified invasive non-native species as a threat,
- Assisted in reducing re-infestation to DoD lands to prevent wasted efforts and resources on high maintenance costs, as well as protect high quality natural areas and imperiled species,
- Leveraged funding and provided resource-sharing on treatments and trainings,
- Allowed for treatments across property boundaries and assisted neighboring private landowners in removing invasive non-native species,
- Assisted the local military installations with taking a landscape level approach to invasive non-native species management,
- Provided communication, prioritization, and planning tools for guidance and consistency while maintaining regional independence,
- Provided training on priority invasive non-native species, which assists with early detection and control efforts,
- Provided community outreach and awareness of invasive non-native species,
- Provided points of contacts, information on websites, and knowledge of how other agencies are managing invasive non-native species, and
- Developed CISMA templates and tools that are easily transferable to military bases nationwide and globally.

CISMA Project Summary and Results

For this DoD Legacy Program Project: Phase I was FY09, Phase II was FY10, and Phase III was FY11. To avoid confusion in this report 'Phases' have been used consistently instead of 'Fiscal Years'.

The initial approach during Phase I was to engage existing TNC staff in collaboration with already-established relationships with DoD and regional partners, to strengthen two CISMAs and use these to mentor and create two new CISMAs to buffer the military installations and adjacent lands involved. The CISMAs also worked under the statewide umbrella of FISP to tie into a network of CISMAs and provide additional resources and continuity in approach. Once established, the efficiency and effectiveness of this invasive species management approach was immediately evident. Therefore the next step, during Phase II was to expand the CISMAs by initiating new relationships with two additional installations in Florida where TNC had existing capacity established to lead the effort. After the second year, the results of the extensive efforts were highly regarded by DoD and all of the partners to be a total success providing much leverage, strategic planning, and many on-the-ground projects. In Phase III, after most of the installations in Florida had been included in the invasive non-native species control network, the effort was to transition the leadership of the CISMAs to the most logical regional partners, to continue to engage and expand the management efforts by all partners. In summary, this project was a model example of how quickly, effectively, and both economically and environmentally feasibly a project concept can be

implemented on-the-ground with networking, planning, and extensive contributions by public and private partners and volunteers.

Phase I of this CISMA project proposed and succeeded in:

1. Strengthening two existing CISMAs supporting Camp Blanding ANG and NAS Key West and use these as mentors for new CISMAs;
2. Creating two new CISMAs supporting Eglin AFB and Avon Park AFR;
3. Working collaboratively with DoD and other regional partners to create Five-year Strategic Plans detailing invasive non-native species priorities and actions for each of the four CISMAs; and
4. Completing two invasive non-native species control projects prioritized by and benefitting Eglin AFB and NAS Key West and to monitor the results.

Phase II of this CISMA project proposed and succeeded in:

1. Continuing to strengthen the four CISMAs from Phase I supporting Eglin AFB, Avon Park AFR, Camp Blanding ANG and NAS Key West;
2. Expanding one additional CISMA to include Tyndall AFB, including completion of an updated CISMA management plan;
3. Creating one new CISMA near Cape Canaveral AFS/Patrick AFB, including completion of a Five-year Strategic Plan and Annual Work Plan;
4. Using the two Phase I control projects as CISMA demonstration projects;
5. Completing five additional control projects benefitting Eglin AFB, NAS Key West, Camp Blanding, Tyndall AFB, and Avon Park AFR;
6. Creating Annual Work Plans for each of the four Phase I CISMAs, ensuring implementation of strategic actions identified in each of the Five-year Strategic Plans developed in Phase I.
7. Designing a Five-year Strategic Plan Template for use by other CISMAs in Florida and nationally; and
8. Distributing the Strategic Plan Template through the FISP website to DoD and national partners.

In addition to the expected products delivered for Phase II, this project also succeeded in:

- Conducting two bonus workdays with the East Central Florida CISMA on DoD-funded conservation easement portion of the Coastal Jewel sanctuary. This property buffers Cape Canaveral AFS/Patrick AFB and was prioritized because of its value to the Florida scrub jay, an imperiled species, and
- Creating customized “weed decks” for invasive plant identification for the four original CISMAs from Phase I. Weed Decks were distributed to DoD and all CISMA partners.

Phase III of this CISMA project proposed and succeeded in:

1. Continuing to strengthen five CISMAs associated Eglin AFB, Tyndall AFB, Avon Park AFR, Cape Canaveral AFS/Patrick AFB and NAS Keys West, assisting with implementation of Five-year Strategic Plans and creating CISMA annual work plans and annual reports,
2. Transitioning the lead role for each CISMA to the most logical regional partners,
3. Completing five additional control projects benefitting Eglin AFB, Tyndall AFB, Avon Park AFR, Cape Canaveral AFS/Patrick AFB and NAS Keys West.
4. Leading plant identification work days to train CISMA partners on high priority invasive species,
5. Continuing outreach and maintaining communications with transferred and new bases in Florida including First Coast IWG that supports Camp Blanding ANG, Everglades CISMA that supports Homestead AFB and Suncoast CISMA serving Tampa Bay area to support MacDill AFB.

In addition to the expected products delivered for Phase III, this project also succeeded in:

- Completing a bonus control project on the Hutton Unit, a conservation property adjacent to Navy Outlying Field (NOLF) Harold. This property, in the Six Rivers CISMA, was prioritized because of its proximity to NOLF Harold and focused on roads that served to spread invasives onto the field.
- Creating a customized "weed deck" for invasive plant identification for the East Central Florida CISMA. Weed Decks were distributed to DoD and all CISMA partners.

By Phase III of this project, one of the greatest strengths is the continuity in approach now occurring across the all of the CISMAs in Florida while still preserving the regional on-the-ground involvement and prioritization. The outstanding results of Phase III as a culmination of this DoD Legacy Program project are detailed below in the Statewide and CISMA specific sections.

CISMA Transfer Plan

The objective of this DoD Legacy Program Project was to establish strong, long-term invasive non-native species partnerships, and once the CISMAs had expanded to cover the state, to transfer leadership to the most logical regional partner to ensure sustainability. This project will continue to evolve and change depending on current circumstances and staffing changes, but the CISMAs will be able to remain intact because of the networking and resource-sharing components, and the majority of the efforts are divided rather than dependent on one or two agencies.

While this DoD Legacy Program project funding has concluded, all of the partners are committed to building upon the foundation that has been laid for future endeavors, and The Nature Conservancy will remain involved in all the CISMAs. In some cases, the leadership was transferred to one chair, in other cases there are co-chairs. Four of the CISMAs involved in this project have been transferred entirely to partners, while one CISMA is still co-chaired and one is still chaired by TNC, as the most logical regional structure for the present time. The chairs and co-chairs now in place to coordinate CISMA operations include: Six Rivers CISMA (UF Florida Sea Grant), ARSA CISMA (TNC), First Coast IWG (FDEP and Army Corps of Engineers (ACOE), Heartland CISMA (Polk County and TNC), ECF CISMA (FWC and ACOE), and Keys CISMA (Monroe County and FDEP).

There is no question that the funding provided by the DoD Legacy Program was essential for the coordination and expansion of CISMAs throughout Florida in a relatively short period of time. In addition to covering substantial project costs, the involvement with DoD personnel was invaluable and provided an exceptional opportunity to build upon existing relationships and to initiate new ones. The ongoing costs associated with the CISMAs moving forward will, as always, be shared and leveraged by the partners according to priorities and available resources. Due to the nature and threat of invasive non-native species, this issue will require and likely provide sources of funding for a very long time. With the CISMA structures constantly improving, and by developing tools and methods to improve efficiency and reduce costs, the CISMAs will remain a model for successful invasive non-native species management.

CISMA Project Websites – The websites below include contact information and documents for each:

Florida Invasive Species Partnership	http://www.floridainvasives.org/
Six River CISMA	http://www.floridainvasives.org/sixrivers/contact.html
ARSA CISMA	http://www.floridainvasives.org/Apalachicola/contact.html
First Coast IWG	http://www.floridainvasives.org/FirstCoast/contact.html
Heartland CISMA	http://www.floridainvasives.org/Heartland/contact.html
East Central Florida CISMA	http://www.floridainvasives.org/eastcentral/contact.html
Keys CISMA	http://www.floridainvasives.org/Keys/contact.html

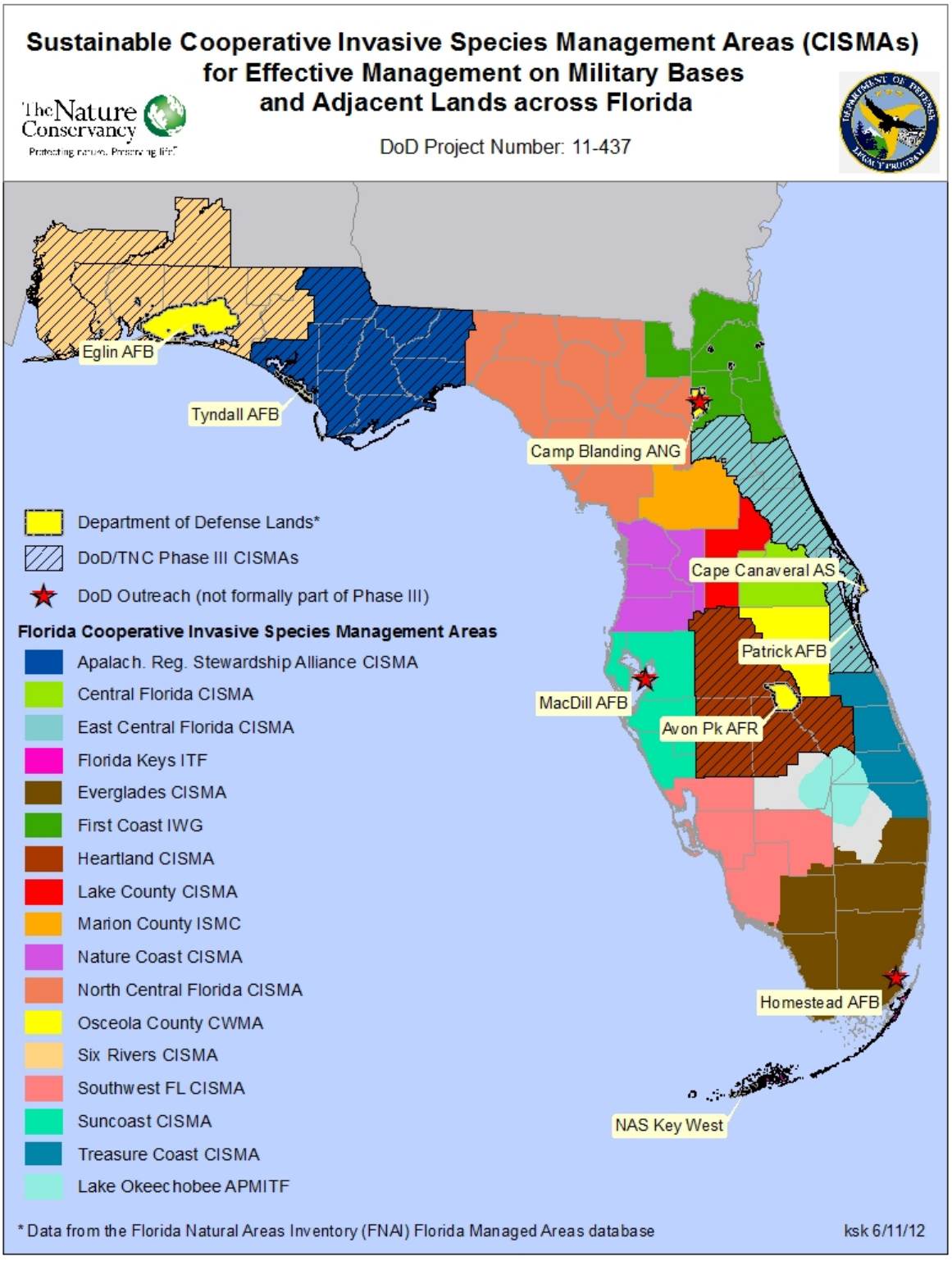


Figure 1 - DoD Legacy Program CISMA Project Areas

CISMA Project Specific Summaries and Results

Separate sections are included below for statewide coordination and each of the six CISMAs included in all phases of the DoD Legacy Program CISMA Project. The strength of these CISMAs exhibits great confidence for the future. All CISMAs have put a structure in place, including chairs, steering committees and subcommittees, to withstand change over time. All of the CISMAs are unique and reflect different partners and conditions. By the CISMAs coordinating with FISP, and creating Five-year Strategic Plans and Annual Work Plans, this project has provided consistencies for all of the CISMAs while allowing them to maintain individual missions, priorities, and characteristics.

CISMA Statewide Coordination / Florida Invasive Species Partnership (FISP)

Statewide project manager, Kristina Serbesoff-King, TNC

Quote by Peter J. Egan, Ph.D., Armed Forces Pest Management Board, Environmental Biologist

"Cooperative Invasive Species Management Areas (CISMAs) are the best way to form partnerships in local areas. These partnerships brings together individuals from federal, state, and local agencies, NGOs and private landowners who bring IPM [integrated pest management] expertise skills, energy and a "can do attitude" to the table. Invasive species know no boundaries, your problem is your neighbor's and your neighbor's problem is yours. Team work can tackle problems that often overwhelm an individuals' effort."

Statewide/FISP Summary

One of the goals of this project was to include each of the CISMAs under the statewide umbrella of FISP. Rather than each CISMA having to "re-invent the wheel," the goal was to provide resources that could be easily adapted to each CISMA's needs as well as facilitate networking and communication between CISMAs to gain from each other's successes and challenges. This goal was accomplished and the enhanced communication and tools that resulted have benefitted from the combined experiences of each CISMA, working with different suites of partners, different species and different habitats. In all phases of this project, the TNC statewide project manager, who co-chairs FISP, facilitated cross-CISMA communication through in-person meetings, monthly conference calls/webinars, panel discussions, presentations and workshops in order to integrate projects despite geographic distance.

In the past three years of this project the following resources have been created:

- CISMA Five Year Strategic Plan Template. Created in Phase I and tested, refined and finalized in Phase II. There are two versions of this template, one in Word the other in Excel. This template provides recommended strategies for partners to cooperatively address the management of invasive species in a geographic area. The Excel version allows for a CISMA to sort strategies by goal, taxa or year, allowing for easier development of an annual work plan or subcommittee plan.
- CISMA Annual Work Plan - Guidance Document. Created in Phase II as a companion to a CISMA's Five-Year Strategic Plan. This one page document is a simple five-step process to completing an annual work plan.

- CISMA Organization Chart and Job Descriptions. This three page document was created in Phase III. It includes a diagram of a generic CISMA organization chart and job descriptions identifying the time commitment, busy season, benefits, responsibilities, and measurables associated with each CISMA job.

In each Phase of this project in coordination with FISP, the TNC co-chair:

- Hosted 10 statewide CISMA conference calls/webinars per year for attendance by all CISMA and FISP members. These calls serve three purposes: 1) for CISMA leads to provide updates on their efforts and seek advice from peers, 2) for people interested in forming new CISMAs to listen in and gather resources, and 3) to get experts to present on invasive species topics. The last purpose, expert presentation, is of great value because it can bring these topics to CISMAs via the webinar service without anyone incurring travel expenses. An archive of these presentations is at http://www.floridainvasives.org/cismacalls.html.
- Encouraged all CISMAS to conduct activities during National Invasive Species Awareness Week (NISAW), resulting in 8 of 15 CISMAs participating in Phase I (2 of 4 DoD CISMAs), 9 of 16 CISMAs participating in Phase II (5 of 6 DoD CISMAs) and 10 of 18 CISMAs in Phase III (4 of 5 DoD CISMAs). In addition, the TNC statewide program manager represented FISP and Florida CISMAs in Washington, D.C through hosting a national NISAW Webcast during Phase II and Phase III focusing on invasive species partnerships and grassroots approaches to addressing the threat of invasive non-native species. These NISAW events, both locally and nationally, helped to raise awareness of the general public and land management agencies about CISMAs and their role in addressing the threat of invasive non-native species.
- Facilitated Annual CISMA meetings each year at the Florida Exotic Pest Plant Council (FLEPPC). In Phase I and II, 12 Florida CISMAs participated in panel discussions focused on sharing successes and challenges and ways to make CISMAs more effective. In Phase III, 14 CISMAs, including all six CISMAs that have been involved in this project, came together for a workshop focused on developing a CISMA organization chart and job descriptions.

Lastly, over the last three years, the concept of CISMAs and the success of this project have been shared by the TNC Statewide coordinator with national audiences through the following venues:

- Presented a poster detailing the goals of Phase I at the 2009 Sustaining Military Readiness Conference in Phoenix, AZ. and a poster and PowerPoint detailing the successes of Phase I and II at the 2011 Sustaining Military Readiness Conference in Nashville, TN.
- Invited to participate in the Strategic Management of Invasive Species in the Southeastern United States Workshop held in Chapel Hill, North Carolina in December 2009. This Workshop, offered by Invasive Plant Control, Inc. through funding from the DoD Legacy Program, looked to Florida to provide real life examples and successes of how CISMAs were working to improve efficiency and effectiveness of invasive species management and engaging DoD partners. A presentation on this DoD Legacy Program funded project was given on behalf of TNC by our UGA FISP member.
- Invited to present during the Invasive Species Committee meeting at the North American Wildlife and Natural Resources 2012 held in Atlanta, GA in March. This was a great opportunity to present this project, with results from all three phases jointly to members of DoD and the Association of Fish and Wildlife Agencies (AFWA). This presentation was given on behalf of TNC by our UGA FISP member.

Sustaining Statewide Coordination/FISP

Florida is fortunate to have FISP, which was created in 2005. Staff from TNC and the USFWS Partners for Fish and Wildlife Program currently co-chairs FISP. Both TNC and USFWS Partners are committed to maintaining this partnership and have agreed to continue co-chairing the organization. In addition, FISP enjoys active participation from Florida's state and federal agencies, UF, UGA, and several other non-governmental organizations (http://www.floridainvasives.org/resolution.html).

One of the goals of FISP is to encourage and support voluntary partnerships [CISMAs] to increase effectiveness and decrease costs of comprehensive invasive species management. FISP will continue to work with CISMAs, serving as an umbrella organization for these partnerships.

Statewide Coordination/FISP Phase III Results

During Phase III many advances were made to strengthen the statewide coordination of CISMAs and provide additional assistance to DoD and partners including:

Monthly CISMA conference calls/webinars: During Phase III of this project, in coordination with FISP, TNC hosted 10 CISMA calls/webinars. Attendance during these calls was very good with a majority of the Florida CISMAs represented during each call and solid representation by our DoD CISMAs and DoD partners. CISMA updates and issues were shared and expert presentations were given. CISMA issues that were worked on collectively during these calls included conducting workdays on private lands, sharing ideas for NISAW events, and proper disposal of homeowner yard waste (i.e. how to legally dispose of invasive plant yard waste and keep from being further dispersed via municipal mulch programs). In addition an expert presentation was given by Jeffrey Herod, Region 4 Aquatic Invasive Species Coordinator for the USFWS on the implementation of Hazard Analysis and Critical Control Point (HACCP) Planning for Natural Resource Pathways.

Statewide meetings of DoD CISMA leads: The leads for the five Phase III CISMAs met in person twice. The first meeting was held in September 2011 for just the DoD CISMA leads. The second meeting was in conjunction with the annual CISMA meeting, discussed below. During this meeting there were three primary agenda items: 1) review of previous phases and discussion of successful completion of Phase III, 2) identifying and discussing how CISMAs could better address the needs of the five Phase III military bases and 3) preparing for the development of a CISMA outreach tool covering organization structure and roles. In order to better address the second item, each CISMA lead interviewed their primary DoD partner and asked three questions. Responses to these questions helped TNC focus the rest of Phase III, primarily in the planning of workdays, to better serve our DoD partners.

1. What lands could CISMA focus through workdays that would benefit the bases?
    - **Private lands adjacent to bases**. Especially lands that support viable federally listed endangered and threatened (E&T) species that are threatened by invasive species. Examples of E&T species included the Florida scrub jay (both Avon AFR and Cape Canaveral/Patrick AFB), beach mouse (Tyndall AFB) and Keys marsh rabbit (NAS Key West).
    - **Nearby conservation lands**. These lands serve to support viable E&T species off base. Also, large agency owned tracts nearby. These types of lands are easy to get access to and provide a good investment with less hassle.

- **Utility corridors adjacent to and which run through DoD lands**. These corridors serve as a dispersal vector for invasive species.

2. What are some CISMA activities that help leverage DoD priorities?
   - **Voice of support for maintained and increased base resources and funding**. DoD, like other agencies, is subject to reduced resources and funding for invasive species management. Eglin AFB, Camp Blanding ANG and Avon Park AFR have all benefitted from resources provided by TNC Ecosystem Restoration Teams, which is a partnership resource that TNC provides to CISMAs.
   - **Support base buffering**. CISMA members are part of their communities and can lend their voice of support and demonstration of commitment to partnership in order to encourage base buffering. An example of this is Phase II and Phase III East Central Florida CISMA workdays on REPI lands.
   - **CISMA trainings and workshops**. Various types of trainings were identified as being useful to our DoD partners, mainly focused on training on control techniques for invasive plants (e.g. aquatic plants, Tyndall AFB).
3. Where else can CISMAs be helpful to DoD?
   - **Outreach to and engage communities**. Relationships with the surrounding community are important to our DoD partners. CISMAs engagement through outreach materials, events and publicity will help raise awareness of the partnership, the problem and the solutions.
   - **Surveys**. CISMAs can coordinate CISMA-wide surveys of invasive species that will help DoD and all CISMA partners focus their efforts on their own lands and through workdays.
   - **CISMA equipment loan**. CISMAs could create local herbicide banks and/or agreements to share equipment. DoD installations and partners would benefit.
   - **Just keep doing great work**! All of our DoD partners emphasized that a primary benefit to their base is the great communication network that the CISMA provides them. They are more aware of what is going on outside of their borders and consider the CISMA a resource.

National Invasive Species Awareness Week (NISAW): During the first week of March 2012, four of the five Phase III CISMAs held cooperative workdays/events during NISAW. In addition, TNC statewide program manager represented FISP and Florida CISMAs in Washington, D.C. by facilitating the Grassroots Invasive Species Forum & Webcast. One of the presentations during this forum was by the Everglades CISMA and highlighted partner's efforts to address the invasion of the Nile monitor, including the infestation on the Homestead AFB. A recording of this webcast is at http://www.nisaw.org/.

Annual CISMA meeting and workshop: The annual CISMA meeting was held in April 2011 during the joint symposium of FLEPPC and the Florida Chapter of the Wildlife Society. TNC statewide program manager and leads from the 5 Phase III CISMAs jointly presented a poster highlighting the successes of this project. In addition, a presentation was given during the full symposium entitled, "Bringing Cooperative Invasive Species Management Areas (CISMAs) to the Military in Florida."

The workshop held during the annual meeting was "How to Sustain a CISMA." This workshop was focused on sustaining long term CISMAs in order to facilitate effective management of invasive species that threaten Florida's wildlife habitats, working lands, natural communities and biodiversity. This workshop was a huge success with 25 participants, representing 14 of Florida's 17 CISMAs, including all five Phase III CISMAs. These participants also represented multiple local, state and federal agencies as well as private entities and non-profits. Our DoD partners from Avon Park AFR and Cape Canaveral AFS/Patrick AFB were present and definitely added great experience to the

ultimate products of this workshop. The group worked collectively for three hours and created a CISMA Organization Chart as well as job descriptions for four CISMA positions: Chair/Co-chair, Steering Committee member, Operations Committee Chair and Outreach Committee Chair. The notes and results of this workshop can be found in Appendix B and can be used by Florida CISMAs and other invasive species partnerships throughout the nation to assist with developing these roles in their partnerships. They will also be posted at http://www.floridainvasives.org/howto.html, under the header "How to Create and Sustain a CISMA/CWMA."

Maintenance of FISP and CISMA websites: Through partner funding provided by the US Fish and Wildlife Service, Partners for Fish and Wildlife Program and in-kind donation of services by the UGA Center for Invasives and Ecosystem Health, the FISP and CISMA websites have all been maintained during Phase III. Products created during this project have all been posted on the FISP website and each of the five DoD CISMA websites have been kept updated through coordination of the CISMA leads with UGA.

Outreach to other bases: The First Coast Invasives Working Group (IWG) was organized in 2006 and supports efforts on and adjacent to Camp Blanding ANG. The First Coast IWG was formally involved in this project during Phase I and Phase II. Leadership of the CISMA was transferred in 2011 to FDEP and ACOE and the CISMA remains very strong in the region. While the leadership had transferred and the First Coast IWG was no longer formally part of this project during Phase III, the previous TNC CISMA managers remain engaged in CISMA meetings and events. As a result of the partnerships created and expanded while involved in this project, the TNC Northeast Florida Ecosystem Restoration Team has now been able to assist Camp Blanding ANG with prescribed burning on and adjacent to the military installation. This provides an example of the continued success and flexibility of the CISMAs during changing scenarios.

The Everglades CISMA (ECISMA) was formally established in 2008 through a Memorandum of Understanding (http://www.ECISMA.org). In early 2012, ECISMA expanded its boundaries to include the eastern portions of Miami-Dade, Broward and southern Palm Beach counties. This expansion followed several years of working with eastern Miami-Dade partners, including Homestead AFB. The interaction with Homestead AFB was initiated during Phase I, with the response of ECISMA members to monitor lizards and tegu lizards on and adjacent to the base. In 2012, FWC, as part of their commitment to the ECISMA partnership, will be developing a plan to address the impacts of Nile monitors in the ECISMA boundaries, including Homestead AFB. Nile monitors are a real threat to the burrowing owl population on Homestead AFB, which has severely declined in areas infested by monitors.

The Suncoast CISMA was formed during the end of Phase II, but solidified in Phase III. This CISMA includes Sarasota, Manatee, Hillsborough and Pinellas counties, which is home to MacDill AFB. The TNC statewide program manager, in coordination with FISP, held a meeting for west central Florida land managers with hopes of accomplishing two goals: 1) identify the need for a CISMA(s) in west central Florida and 2) develop initial boundaries. The formation of the Suncoast CISMA followed with TNC/FISP providing resources created during Phase I and II of this project to jump start their progress. This CISMA is still young, but has a dedicated leadership and a commitment to building the partnership in their region.

Outreach to other states: During Phase III, the TNC statewide program manager reached out to UGA Center for Invasives and Ecosystem Health, Invasive Plant Control (IPC, a private company based in Tennessee) and the Midwest Invasive Plant Network (MIPN) in order to find partners to expand this

project with DoD installations in other states. Both UGA and IPC submitted proposals to DoD Legacy program for FY13 funding. IPC was awarded partial funding for their project entitled, "Department of Defense EDRR Strike Teams," which will provide rapid response capacity to several bases in the southeast United States. TNC wrote a letter of support for this project and urged IPC to include educational seminars on each installation that highlight species of concern on neighboring properties, tools available to manage these species and the consideration of partnership efforts such as CISMA's. Both UGA and MIPN plan on building off our successes in Florida and TNC will continue to work with them to see how tools developed during this project can be expanded.

Eglin AFB / Six Rivers CISMA

Six Rivers CISMA Project Manager, Steve Bennett, TNC

Highest-threat invasive non-native species include: cogon grass, Japanese climbing fern, Chinese tallow, and feral hogs

Quote by Dennis Teague, Eglin Air Force Base, Endangered Species Biologist

"The Legacy funded Six Rivers CISMA (FY 2009- present) is instrumental in bringing together land manager partners who have compatible goals to prevent the introduction and spread of invasive non-native species (INS) in the Western Panhandle of Florida and southern Alabama. This collective group of federal, state, county and conservation organizations focuses on addressing the threat of INS by teaming together to coordinate management activities and increase public awareness concerning INS and their threat to local and regional ecosystems. In addition, the CISMA is responsible for the continuing development of an excellent webpage.

As part of the CISMA, the [TNC] Ecosystem Support Team provided a critical function for the initial coordination, facilitation and ultimate transfer of the leadership responsibilities to the most logical partner for the long range management and oversight of the program. The Ecosystem Support Team was also valuable to support Eglin by successfully treating INS in rare and sensitive habitat types where no resource damage was acceptable. The Ecosystem Support Team has also developed working relationships with landowners to control INS on properties adjacent to Eglin and increased public awareness and the effectiveness of the long term management of INS on Eglin property.

The continued existence and function of the Six Rivers CISMA is critical for land managers and waging war to combat and control INS in Northwest Florida."

Six Rivers CISMA Summary

Eglin AFB has remained committed to the role as the Lead Base on this DoD Legacy Program CISMA Project since the onset in 2009, facilitating support communications and efforts between installations. The partnering efforts provided by Eglin AFB's Natural Resources Department have been a model for highly effective invasive non-native species management methods for all DoD bases.

The Six Rivers CISMA was founded with an inaugural meeting in October 2009 and supports efforts on and adjacent to Eglin AFB. Since its inception, a steering committee and six subcommittees were designated, and a Five-year Strategic Plan was put into place. The boundaries, initially only six Florida counties, were expanded to nine counties including three counties in Alabama. Consistently, representatives from 25 public and private agencies regularly attend CISMA meetings.

Through the support of the DoD Legacy Resource Management Program funding, the Six Rivers CISMA was able to treat invasive non-native species infestations threatening DoD lands both throughout the larger CISMA area and adjacent to Eglin AFB. The project resources were focused directly on Eglin AFB managed lands as well as on the Ft. Walton Beach and Niceville campuses of the Northwest Florida State College. Treating on adjacent lands reduced the volume of seed and spores moving along natural and man-made drainages and infesting DoD lands which share their borders. Phase I work was conducted primarily on Eglin AFB managed lands, with a focus on E&T sensitive lands and on base boundaries. During Phase II of this agreement, 80 acres were initially treated and monitored, concentrating on the property immediately around the Ft. Walton Beach campus. In Phase III this area was expanded to include the campus property to the north, which borders a residential community, and the extreme western boundary which borders Eglin AFB. Additionally, the Niceville campus was included as it also borders Eglin AFB. This brought the total acres treated to approximately 382.

A bonus project was also accomplished when the Ecosystem Support Team (EST) was able to locate and treat cogon grass on the Hutton Unit located in eastern Santa Rosa County. This treatment was accomplished without any additional costs to this project. The property is owned by FFS and managed by FWC and shares a border with Naval Outlying Field (NOLF) Harold in Santa Rosa County.

Sustaining the Six Rivers CISMA

Leadership of the Six Rivers CISMA has been transferred and is now chaired by the UF Florida Sea Grant.

During Phase II and III of this DoD Legacy Program Project, the Six Rivers CISMA made significant changes to the way needs are prioritized, tasks are delegated, and the guidance for the CISMA towards accomplishing the goals and mission.

The Six Rivers CISMA was chaired by TNC's Gulf Coastal Plain Ecosystem Partnership (GCPEP) until 2010. The Statewide CISMA Strategic Plan Template, created with the help of the DoD Legacy Program funding, laid out a pathway to more sincere cooperation and leadership among the agencies involved. During Phase II the Six Rivers CISMA was then co-chaired by TNC and UF Florida Seagrant. This co-chair scenario created an overlap, but facilitated a smooth transition in Phase III for the CISMA chair position to be entirely assumed by UF Florida Seagrant.

Moving into the future the Six Rivers CISMA will be sustained by acknowledging and implementing the following points:

- The Six Rivers CISMA Steering Committee should facilitate the opportunity to rotate the chair position among the partners,
- Relying on one organization to lead the Six Rivers CISMA is not sustainable nor does it allow the CISMA to prepare for unpredictable changes in the future. The leadership should be easily and

regularly rotated to create a culture of shared responsibility and ensure the long term sustainability of the partnership,
- Broaden participation base throughout the CISMA boundary,
- Expand tools/resources available to participating members,
- Provide Early Detection/Rapid Response prioritization and training to partners,
- Conduct cooperative workdays,
- Expand community outreach,
- Provide technical and funding opportunities assistance to partners, and
- Provide equipment and staff resource-sharing.

Six Rivers CISMA Phase III Results

During Phase III many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

Six Rivers CISMA Phase III Workdays and Volunteer Events

During Phase III the Six Rivers CISMA coordinated five workday and volunteer events on partner lands to include Eglin AFB, City of Niceville, and the City of Pensacola. Plants targeted during the workdays included Chinese tallow, Chinese privet, mimosa, and chinaberry. Participants represented several student and work groups including, Americorps, Choctawhatchee Basin Alliance, UF Institute of Food and Agricultural Services (UF IFAS), several colleges, city employees, DoD, and TNC. Work completed ranged from hack-and-squirt, to chainsaw operations, to hand pulling. Chemical treatments and chainsaw operations were led by or facilitated by TNC Ecosystem Support Team.

Six Rivers CISMA Phase III Meetings and Trainings

Forest Stewardship Workshop
The Six Rivers CISMA assisted UF IFAS Forest Stewardship at the Forest Stewardship Workshop of Invasive and Exotic Species in Crestview in January 2012. There were 151 participants from seven counties representing 1,001,834 acres of land.

National Invasive Species Awareness Week (NISAW)
During NISAW several activities took place. Some highlights included:
- The City of Niceville Workday in March 2012 with participants from UF/IFAS, TNC, DoD, City of Niceville and University of South Florida. Work completed ranged from hack-and-squirt, to chainsaw operations, to hand pulling. Targeted species was Chinese tallow. This work took place on a City of Niceville storm drain easement where Chinese tallow had been allowed to establish along the drainage in an urban community. Chemical treatments and chainsaw operations were led or facilitated by TNC's Ecosystem Support Team.
- Multiple agencies created a series of Facebook/Twitter posts each day reaching an audience of over 1000 people per day. In some cases the totals were more, due to posting by other agencies. The cogon grass twitter post went statewide in Florida.
- Several press releases were distributed via email throughout Hurlburt AFB as well as some newspaper coverage combined with the Facebook/Twitter posts cover such topics as general invasive and CISMA information, specific invasive issues (lionfish, cogon grass, agriculture weed issue, EDRR maps, workdays), and how to get involved.

- Choctawhatchee Basin Alliance installed educational signage regarding invasive non-native plants on Oyster Lake in south Walton County.
- Eglin AFB Earth Week event educated 30 people on invasive and exotic species, as well as CISMA efforts.

Six Rivers CISMA Calendar Year 2011 Annual Report and 2012 Annual Work Plan

The Six Rivers CISMA 2011 Annual Report and 2012 Work Plan was submitted to DoD Legacy Program in March 2012.

Six Rivers CISMA Monitoring and Control Projects

The EST monitored and re-treated priority invasive non-native species occurrences on high-quality natural areas on Eglin AFB. These areas had been previously managed but were re-infested, primarily from invasive non-native species populations on private property adjacent to the project areas.

Six Rivers CISMA Phase II Post-treatment Monitoring

The Six Rivers CISMA Monitoring Report was delivered to the DoD Legacy Resource Management Program in December 2011.

Six Rivers CISMA Phase III Control Project

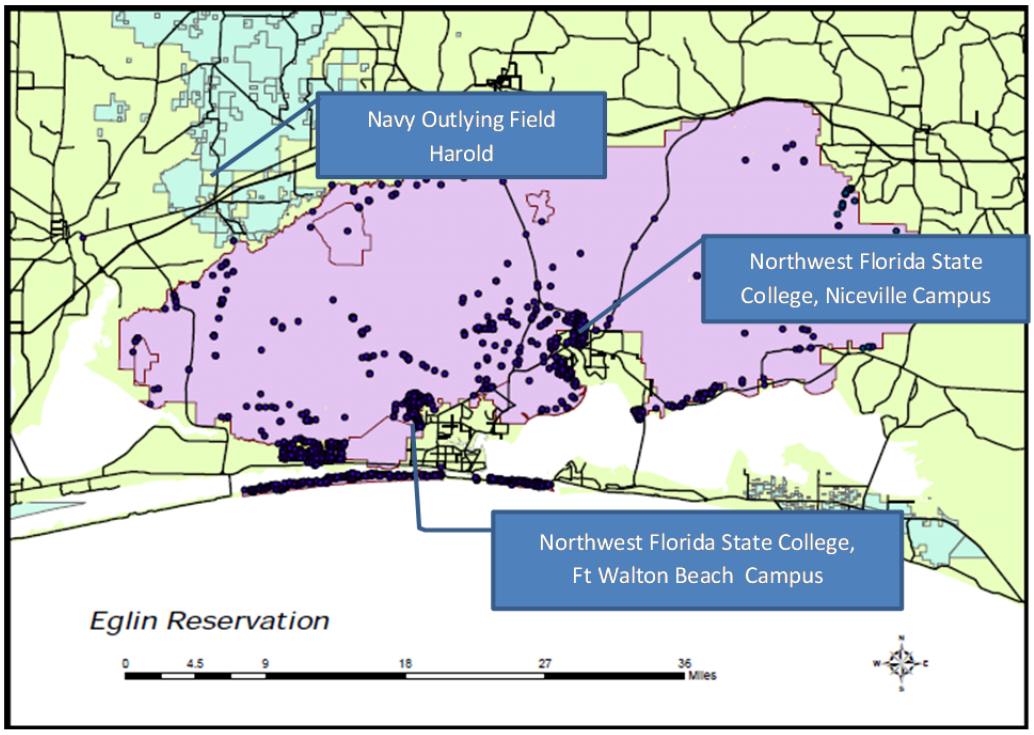
1. Northwest Florida State College (Okaloosa County, Florida)
   The Northwest Florida College owns two campuses that share borders with Eglin AFB in Okaloosa County. Drainages, natural and manmade, originating on the college property, provide vectors for spreading invasive species onto the adjacent Eglin AFB property.

   Site A: Ft. Walton Beach Campus
   - Treated 212 acres of pine flatwoods surrounded on two sides by Eglin AFB and Green Acres residential community.
   - Species treated were Chinese tallow, Chinese privet, and Japanese climbing fern.
   - 80 acres had been treated during Phase II. These initial treatments concentrated on boundary lines that were shared with Eglin AFB. In Phase III these areas were revisited and re-treated. Additional acreages were treated that were considered contributory to the overall infestation.
   - Phase III efforts concentrated on the areas around the drainages and cypress ponds that crossed the boundaries onto Eglin AFB property.

   Site B: Niceville Campus
   - Treated 170 acres of sandhill uplands surrounded on three sides by Eglin AFB.
   - Species treated were Chinese tallow, Chinese privet, and Japanese climbing fern.
   - Phase III efforts concentrated on the areas around the drainages that crossed the boundaries over to Eglin AFB property.

2. Hutton Unit Florida Fish and Wildlife Conservation Commission (FWC) (Santa Rosa County)
As a bonus project, the EST was able to locate and treat cogon grass on the Hutton Unit located in eastern Santa Rosa County. The Hutton Unit is a 7,600 acre parcel owned by the Florida Forest Service and managed by FWC. The property shares a border with Naval Outlying Field (NOLF) Harold and is becoming a threat to spreading cogon grass onto the field through management operations on the unit such as logging and field clearing for bird management. NOLF Harold is one of the training fields used by the Navy to conduct helicopter flight training operations. The EST focused on internal roads and trails, as well as previously disturbed areas from logging operations. All together the EST located and treated cogon grass on 16 miles of internal roads and trails. Additionally, a contracted crew used on the college campus projects was able to divert to the Hutton unit and treat the larger infestations that were sizeable enough to warrant these efforts. This good work was accomplished without any additional costs to the project.
   - Treated over 16 miles of internal roads and three logging decks.
   - Species treated was cogon grass.
   - Phase III efforts concentrated on all roads and areas where disturbance was occurring.

Six Rivers CISMA Phase III Control Project Photo Monitoring



Eglin AFB, Florida – DoD LegacyPhase III Invasives Spring 2012 Treatments
Gulf Coastal Plain Ecosystem Partnership
Ecosystem Support Team

Figure 2 - Six Rivers CISMA Phase III Control Projects Map

Figure 3 - Six Rivers CISMA – Ft. Walton Campus – before and after treatment of climbing fern on gas pipeline right-of-way leading to Eglin AFB

Figure 4 - Six Rivers CISMA – Ft. Walton Campus – before and after treatment of Chinese tallow, privet and climbing fern in ditch flowing onto Eglin AFB

Figure 5 - Six Rivers CISMA – Ft. Walton Campus – before and after treatment of Chinese tallow adjacent to Eglin AFB

Figure 6 - Six Rivers CISMA – Niceville Campus – before and after treatment of Chinese tallow adjacent to Eglin AFB

Figure 7 - Six Rivers CISMA - Niceville Campus – before and after treatment of Chinese tallow near Eglin AFB

Figure 8 - Six Rivers CISMA – Hutton Unit – before and after treatment of cogon grass on logging deck adjacent to Naval Outlying Field (NOLF) Harold

Tyndall AFB / Apalachicola Regional Stewardship Alliance CISMA

ARSA CISMA Project Manager, Brian Pelc, TNC

Highest-threat invasive non-native species include: cogon grass, Japanese climbing fern, Chinese tallow, and feral hogs

Quote by Gwendolyn Jones, Tyndall Air Force Base, Wildlife Biologist

"Tyndall AFB has a number of invasive species within and surrounding the installation. Creating a CISMA greatly enhanced the effectiveness of internal invasive control, as well as targeting source populations outside the installation."

Tyndall AFB has benefited from the CISMA by learning more about specific identification and treatment for various invasive plants. This has increased the efficiency of our control operations, especially in active military training areas. The CISMA has increased partnering and information sharing between public land managers within the watershed.

Tyndall AFB greatly appreciates the CISMA's technical assistance and treatment of invasive plants surrounding our installation. TNC has addressed the need to control invasives across our boundary. The CISMA has created a network of professionals and improved coordination and control of exotics. "

ARSA CISMA Summary

The Apalachicola Regional Stewardship Alliance (ARSA) CISMA supports efforts on and adjacent to Tyndall Air Force Base on the Gulf of Mexico coast of Florida. Originally established in 2003 as the Apalachicola Invasive Working Group, the emphasis then was on treating invasive non-native plants infesting private property adjacent to lands managed for conservation. In 2010, the group was renamed in order to affiliate directly with the larger ARSA. In addition, during Phase II of this DoD Legacy Program Project, the boundaries of the CISMA were expanded from the original scope of the Apalachicola River watershed to nine-counties, covering nearly one million acres of land: Bay, Calhoun, Franklin, Gadsden, Gulf, Jackson to Leon, Liberty, and Wakulla. This expansion allowed the CISMA to support efforts on and adjacent to Tyndall AFB on the Central Gulf Coast of Florida. Also during Phase II a steering committee was designated and the Invasive Management Plan was updated.

Through the continued support of the Phase III DoD Legacy Program funding, ARSA CISMA was able to continue treating invasive non-native species threatening lands both throughout the larger CISMA area and close to Tyndall AFB. The CISMA focused resources on the north end of the Apalachicola River, thereby reducing the volume of seed and spores moving along the river and infesting lands to the south. These southern reaches of the river include the Apalachicola National Forest, Tate's Hell State Forest, and coastal lands from St. Marks National Wildlife Refuge to the East, and Tyndall AFB to the west. Numerous partner agencies identified several private parcels needing treatment either adjacent to, or on direct routes from neighboring communities to Tyndall AFB. Many of the invasive non-native species found surrounding and impacting Tyndall AFB spread extensively along major roads, rights of ways, by freshwater and saltwater, or by birds since the base is surrounded on three sides by water. Control projects were focused on likely vectors coming onto Tyndall AFB in addition to direct proximity.

ARSA CISMA covers one of the fastest growing regions in the United States. Thus, community involvement is essential for the ARSA CISMA to function effectively. The cumulative effort of dozens of partners helps the organization respond quickly to urgent invasive non-native species control issues and prioritize long term control efforts strategically. In one dramatic case, ARSA CISMA members including Tyndall AFB Natural Resources, TNC, FDEP, and FWC cooperated with unprecedented speed and agility to treat an infestation of Brazilian pepper, a shrubby exotic not well known in the Florida Panhandle, but a prolific, invasive non-native species in central and south Florida. Following this EDRR strategy, partner's reports of the shrub were quickly validated, landowners contacted, agreements signed, and the infestation managed, all within weeks of information first coming into the CISMA. This was truly a group effort and all partners played a critical role in the accomplishment.

However, it was the role of Tyndall AFB, as an icon of the community that first gained access to the property and permission from the landowner. Several attempts to contact the landowner by other CISMA partners failed, whereas one call from Tyndall AFB staff was successful. This demonstrates how the relationships between DoD, agency partners, and the community directly facilitate CISMA action and efficacy. It is essential that these relationships remain strong over the long-term for the CISMA to remain successful on a scale equal to the invasive non-native species spreading through the panhandle.

Sustaining the ARSA CISMA

Leadership of the ARSA CISMA will continue to be chaired by The Nature Conservancy.

During Phase II and III of this DoD Legacy Program project, ARSA CISMA made significant changes to the way we prioritize needs, delegate tasks, and guide the CISMA towards accomplishing our goals and mission. Since the CISMA was spearheaded and funded through the work of TNC Northwest Florida program, this group took a singular leadership role until 2010. The Statewide CISMA template, produced with DoD Legacy Program funding, established the groundwork for more cooperation and leadership sharing among the agencies involved. This diversity of opinions and delegation of responsibilities helps to ensure the long-term sustainability of ARSA CISMA.

- ARSA CISMA Steering Committee: ARSA CISMA started relying on the advice and broader perspective of a newly formed steering committee beginning in Phase II. In addition to physically representing a large area of the CISMA region, the steering committee also represents various professional perspectives including extension agents, military natural resources, "on the ground" staff as well as data collection and management professionals. These various points of view have already yielded new opportunities for outreach and helped to establish work plan action items that address the needs of the entire region.

- ARSA CISMA Leadership Exchange and Delegation: Relying on one organization to chair the CISMA is not the most long-term sustainable approach, nor does it allow the CISMA to prepare for unpredictable funding and staff changes. Although untested at this point, the ARSA CISMA Chair position may be rotated among the steering committee to help ensure the long-term sustainability of the partnership, and this concept will be considered later in 2012. Additional delegation of responsibilities from the chair to the committee members will assist in making the chair position an enjoyable one that committee members can fully embrace. A CISMA

workshop at the 2012 Florida Exotic Plant Pest Council annual conference provided new tools and definitions that ARSA CISMA will employ in the future to help with delegation and leadership.

- ARSA CISMA Invasive Species Control Strategy: In addition to private lands and community outreach projects that ARSA CISMA had historically carried out, the strategic planning process suggested new ways of categorizing and treating invasive infestations strategically. Differentiating "control/management problems" and "early detection/rapid response (EDRR) problems" helps CISMAs reduce the likelihood of new invasive non-native species joining the list that land managers already contend with on an annual basis. In the Calendar Year2012 work plan, the ARSA CISMA Steering Committee identified "*Form EDRR taskforce and host species priority workshop to develop an EDRR list for ARSA CISMA*" as action item #2. Effectively "closing the valve" on new infestations, this strategy promises to reduce the workload of land managers and limit the on-going control efforts to those invasive non-native species already well-established in the ARSA CISMA region.

- Value added benefits of ARSA Memorandum of Understanding (MOU): All members of ARSA CISMA benefit from the larger ARSA organization since the CISMA is a committee nested within the broader land stewardship alliance. For example, Tyndall AFB joined ARSA CISMA in 2011 at which point the CISMA began identifying invasive species issues around the base and throughout Bay County. By early 2012, Tyndall AFB staff began attending ARSA semi-annual meetings and taking advantage of the idea exchanges and roundtable discussions that ARSA partnership offers. By the 2012 growing season, TNC staff, under the auspices of the ARSA MOU began assisting with prescribed fire operations on Tyndall property, bringing staff, equipment, and fire operations experience. Value added benefits such as assistance with prescribed fire, cooperative workdays, species management prioritization, and community outreach help encourage membership in the ARSA CISMA and help ensure a bright and cooperative future for the group.

ARSA CISMA Phase III Results

During Phase III many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

ARSA CISMA Phase III Workdays and Volunteer Events

ARSA CISMA members teamed up during National Invasive Species Awareness week to provide a "Backyard Weed Identification and Management Seminar" at the Tallahassee Garden Club. Over 30 local homeowners attended and spent over two hours learning about weed ecology, identification, and management. All participants received a 20% off coupon to purchase herbicide at a local garden center.

In June 2012, the CISMA hosted the first ARSA CISMA Cooperative Workday & EDRR workshop at Apalachicola Bluffs and Ravines Preserve. This centrally-located preserve offered a convenient location within the CISMA region and offered an in-situ example of EDRR (Japanese stiltgrass) for ARSA CISMA members to learn information about, visit in the field, and then assist in management. The workshop included presentations on "The Top 11 EDRR Species for the ARSA CISMA Region",

"EDDMapS: Invasive Species Reporting Database Tools" and "Population Biology and Management of Japanese Stiltgrass." After the indoor portion, the group proceeded into the field to survey, report, and treat the grass according to EDRR protocol.

ARSA CISMA Phase III Meetings and Trainings

In December 2011, the steering committee, per the ARSA CISMA Five-year Strategic Plan, completed the annual review of the priority control species. The steering committee also used the ARSA CISMA Five-year Strategic Plan to set objectives for the year. In addition to EDRR projects, ARSA CISMA elected to continue private lands projects, totaling over 100 acres, offer trainings for the public, and maintain quarterly updates on invasive non-native species infestations within the CISMA boundary.

2012 ARSA CISMA Priority Control Species

Cogon grass	*Imperata cylindrica*
Climbing Fern	*Lygodium japonicum*
Chinese Tallow tree	*Sapium sebiferum*
Mimosa	*Albizia julibrissin*
Camphor	*Cinnamomum camphora*
Privet(both glossy and Chinese)	*Ligustrum lucidum & sinense*
Air Potato	*Dioscorea bulbifera*

In April, ARSA CISMA also hosted a special "EDRR Species Prioritization" meeting. This exercise applied the combined talents of six agency botanists to a list of 102 known invasive non-native plant occurrences within 50 miles of the ARSA CISMA boundary. From this lengthy list the 11 most serious threats were identified that are not yet considered "control" species. Known as the "Bad 11", this species list will form the basis for EDRR treatment priorities and outreach for the following year. The list will be updated annually and Identification/Management handouts will be produced for land managers in the region.

2012 ARSA CISMA EDRR Priority Species

Giant Reed	*Arundo donax*
Itchgrass, Raoulgrass	*Rottboellia cochinchinensis*
Natal Grass	*Melinis (Rhynchelytrum) repens*
Multiflora Rose	*Rosa multiflora*
Skunk-vine	*Paederia foetida*
Eurasian Water-Milfoil	*Myriophyllum spicatum*
Tropical Soda Apple	*Solanum viarum*
Japanese Stiltgrass	*Microstegium vimineum*
Paper Mulberry	*Broussonetia papyrifera*
Guineagrass	*Panicum maximum*
Mariana Maiden Fern	*Macrothelypteris torresiana*

Numerous in-person and teleconference meetings were held by the ARSA CISMA Steering Committee in the past year. We began the fiscal year with a September telephone-review of the

Five-year Strategic Plan and discussed ideas for the ARSA CISMA Annual Work Plan. By the November in-person meeting we finalized the draft annual work plan and discussed new weed species in the area. We also held a teleconference meeting in mid-December to plan the calendar year and delegate action items. We conducted an email-based review of accomplishments and objectives in late March and wrapped up the year with a telephone meeting in late June, where we shared notes from the annual CISMA meeting.

ARSA CISMA Calendar Year 2011 Annual Report and 2012 Work Plan

The ARSA CISMA 2011 Annual Report and 2012 Work Plan was submitted to DoD Legacy Program in March 2012.

ARSA CISMA Monitoring and Control Projects

ARSA CISMA Phase II Post-treatment Monitoring

The ARSA CISMA Monitoring Report was delivered to the DoD Legacy Resource Management Program in December 2011.

ARSA CISMA Phase III Control Projects

1. Northern Apalachicola Watershed project (Jackson County, Florida)
   In 2011, ARSA CISMA provided contracted invasive species control on three parcels near or adjacent to critical partner lands within the Tyndall AFB watershed. Funds invested on the northern portions of the Apalachicola River also benefit lands down river as many exotic species are transported throughout the region by rivers.

   - **Site A - Apalachee Wildlife Management Area (WMA) project**: This private parcel has approximately 80 acres of planted pine surrounded on three sides by the WMA and infested with Japanese climbing fern. Additionally, the site has approximately 3 acres of Chinese tallow. Both species are a significant watershed invasive and utilize the Apalachicola River as a vector to spread throughout the region and down to the coast. Chinese tallow is salt water tolerant and a major threat to Tyndall AFB natural areas.
   - **Site B -El Bethel Church Road project:** Efforts on this site capitalized on previous treatments of Chinaberry tree, Japanese climbing fern, and Nandina in an 8 acre buffer surrounding a hay field near both the WMA and Three Rivers State Park.
   - **Site C -Three-Rivers State Park project:** This test project attempted to determine the source of re-infestation on Three Rivers State Park, which also lies on the Apalachicola River. After treating kudzu on the fence line separating the state park from the private property, the owner allowed ARSA CISMA to survey the expansive uplands between his farm fields for invasive species. Park staff suspected re-invasions from these uplands after rain events and considered this pathway the only unmanageable invasive non-native species vector on the park. Unfortunately, the survey did not reveal the source populations.
   - **Site D - Apalachicola Bluffs and Ravines project:** Japanese stilt grass on 2 acres of TNC's preserve was treated by a combination of TNC and FFS staff for the second time. This species was identified by the EDRR taskforce as part of the "Bad 11" EDRR species list. The prompt treatment of this annual grass in the floodplain forests of ABRP has reduced the seed bank size and kept the population from expanding throughout the watershed. This

species is widespread throughout the eastern half of the United States north of Florida and has remained contained in a handful of regularly treated sites in the Florida Panhandle.

2. Five sites near Tyndall Air Force Base (Bay County, Florida).
Tyndall AFB is surrounded on three sides by salt water, and is located on the Gulf of Mexico. This limits the possibilities of infestation from near-by properties, but does not leave the military base immune to invasion from more distant, inland sources via vehicle, bird, or fresh and saltwater vectors. For these reasons, ARSA CISMA focused on cogon grass (spreads by vehicles traveling into the base) and fruiting trees and shrubs (Chinese tallow and lantana) on the mainland.

- **Site A**: 2 acre cogon grass infestation immediately north of the base and located along a busy, main corridor into and through the base (Highway 98).
- **Site B**: 3+ acre utility parcel infested with cogon grass, Chinese tallow, lantana and several other FLEPPC Category II invasive species. Cogon grass was also located along Highway 98 and just north of Site A.
- **Site C**: 3+ acre cogon grass infestation on a group on undeveloped parcels in a residential neighborhood popular with Tyndall AFB families. Here vehicles could easily pick up cogon grass reproductive tissue and transport it directly onto the base.
- **Site D**: 2+ acres of Chinese tallow immediately across a saltwater bay from Tyndall AFB.
- **Site E**: 4 individual Brazilian pepper shrubs on a single parcel on Grand Lagoon in Panama City Beach. This saltwater bay connects St. Andrew's State Park with Tyndall AFB.

ARSA CISMA Phase III Control Project Photo Monitoring

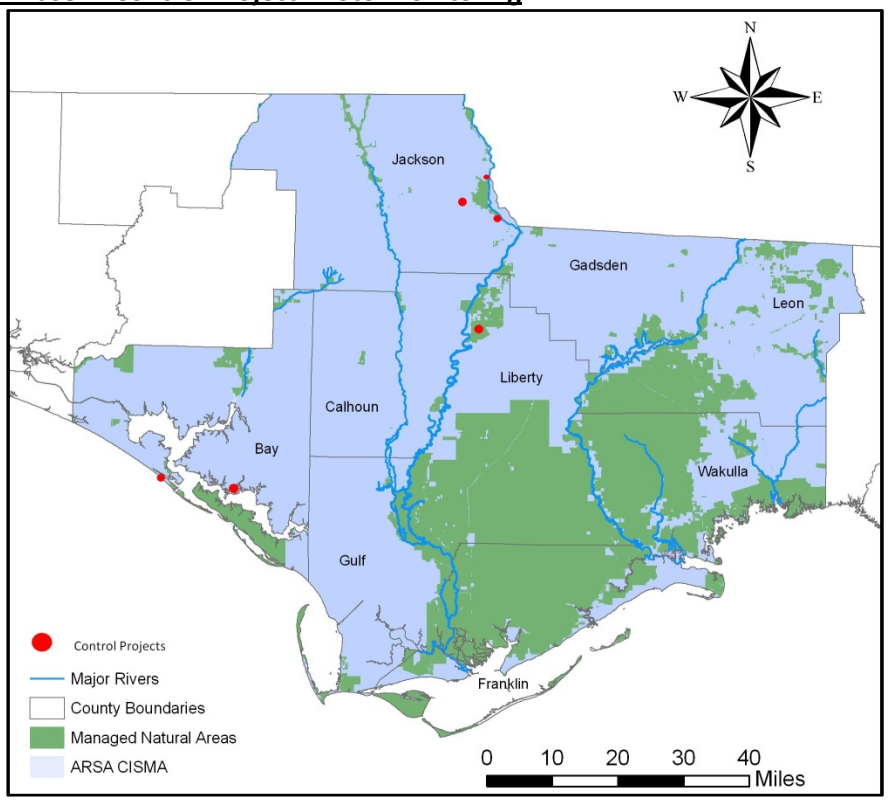


Figure 9 - ARSA CISMA Phase III Control Projects Map

Figure 10 - ARSA CISMA – Northern Apalachicola Project Site A before and after climbing fern treatment

Figure 11 - ARSA CISMA – Northern Apalachicola Project Site A before and after Chinese tallow treatment

Figure 12 - ARSA CISMA – Northern Apalachicola Project Site B before and after Chinaberry tree treatment

Figure 13 - ARSA CISMA – Northern Apalachicola Project Site C after fence line Kudzu treatment (before picture unavailable)

Figure 14 - ARSA CISMA –Northern Apalachicola Project- Site D before and after Japanese stilt grass treatment

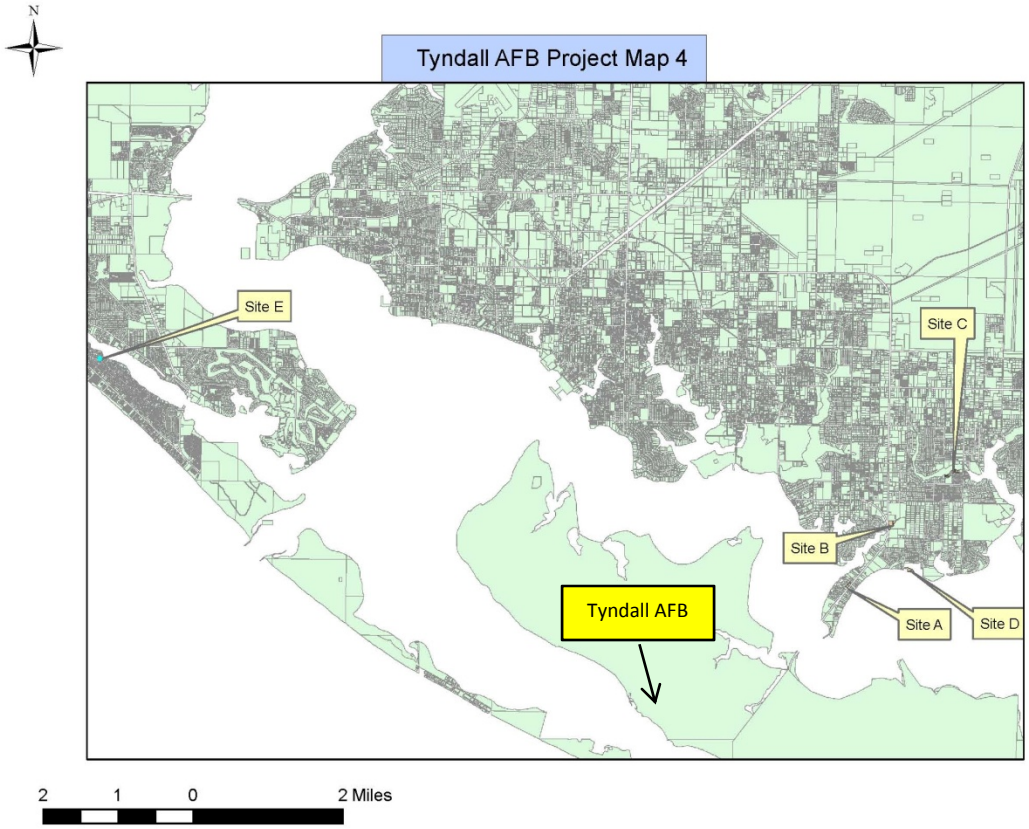


Figure 15 - ARSA CISMA –Tyndall AFB Project –Phase III Project Map

Figure 16 - ARSA CISMA –Tyndall AFB Project- Site A before and after cogon grass treatment

Figure 17 - ARSA CISMA –Tyndall AFB Project- Site B before and after cogon grass and Chinese tallow treatment

Figure 18 - ARSA CISMA –Tyndall AFB Project- Site C before and after cogon grass and Chinese tallow treatment

Figure 19 - ARSA CISMA –Tyndall AFB Project- Site D before and after Chinese tallow treatment

Figure 20 - ARSA CISMA –Tyndall AFB Project- Site E before and after Brazilian pepper treatment

Avon Park AFR / Heartland CISMA

Heartland CISMA Project Manager, Cheryl Millett, TNC

Highest-threat invasive non-native species include: cogon grass, Old World and Japanese climbing ferns

Quote by Brent Bonner, Supervisory Natural Resource Specialist, Avon Park Air Force Range

"The Heartland CISMA is the community of support required for successful invasive species management. They provide us the education for the identification and treatment of exotic invasives, the vehicle for across the fence treatments, and keep us abreast of emerging trends and potential dangers in invasive species management. Having this community of support available directly fosters the military mission at Avon Park Air Force Range."

Heartland CISMA Summary

The Heartland CISMA was founded in 2009 and supports efforts on and adjacent to Avon Park Air Force Range (AFR) in Central Florida. The Heartland CISMA includes members from Polk, Highlands, Hardee, Desoto, and Okeechobee counties. Okeechobee County was added in 2012 at the request of a land manager who wants to be able to formally participate in the “great projects” of this CISMA. Members of the Heartland CISMA include federal, state, municipal, and NGOs’ working together to coordinate and prioritize invasive species efforts to maximize effectiveness.

During Phase I of the CISMA project, the Heartland CISMA was established from the Lake Wales Ridge Ecosystem Working Group’s Invasive Species Committee, expanding the coverage area from the Lake Wales Ridge to four counties (with Okeechobee added in 2012). A Heartland CISMA Five-year Strategic Plan was put in place. Priority species lists were adopted to guide future work on EDRR and control species.

During Phase II, a steering committee was designated and subcommittees (strategic plan, prevention, EDRR/control, aerial survey, website, and outreach) were formed. The five-year strategic plan was used to develop an Annual Work Plan. An identification and treatment guide to the top-ranked EDRR species was developed and disseminated. The biennial aerial survey (begun in 2004) to locate remote Old World climbing fern infestations to enable rapid response was continued with the assistance of Avon Park AFR who flew the CISMA surveyors.

The first annual Central Florida Invasive Species Workshop was held in Phase II during NISAW at Circle B Bar Reserve and the Early Detection Scavenger Hunt was piloted to award prizes to encourage online reporting of priority invasive species. Two control projects were carried out, including treatment of priority species cogon grass by the Central Florida Ecosystem Resource Team (ERT) on Avon Park AFR with DoD Legacy Program project funding. A bonus project treated priority species Old World climbing fern on a private property identified by Avon Park AFR as a spore source, with treatment coordinated by CISMA leads using USFWS Partners for Fish and Wildlife funding.

During Phase III, a co-chair was added and the steering committee was renewed. An annual report summarizing work accomplished in 2011 was created and disseminated, and an annual work plan for 2012 was developed. The second annual Central Florida Invasive Species Workshop was held during NISAW with Continuing Education Units (CEUs) available and prizes were awarded to the winners of the Early Detection Scavenger Hunt. Two invasive species identification and control workshops were held to train attendees in identification and treatment of key invasive species.

Sustaining the Heartland CISMA

Leadership of the Heartland CISMA has been transferred to co-chairs with Polk County and The Nature Conservancy.

The DoD Legacy Program funding enabled TNC to participate in the Heartland CISMA to build a stronger structure by including the following:

- Working with other CISMA leaders and representatives of Avon Park AFR to define structural needs common to all CISMAs, create a strategic plan template, create an annual work plan template, create a method for establishing priority species lists, and define critical roles for sustaining CISMAs.
- Establishing the Heartland CISMA in Phase I and defining the boundaries to include Polk, Highlands, Hardee, and DeSoto and, in Phase III, Okeechobee counties instead of the narrow focus on the Lake Wales Ridge that the committee had prior to this project.
- Expanding the organizational structure in Phase II from a chair, to a chair with a steering committee, providing more capacity to carry out work and providing a reliable means of input from all members. The addition of a co-chair in Phase III provides for continuity of leadership and less reliance on one organization to lead the CISMA.
- Developing a five-year strategic plan based on a template created for Florida CISMAs in Phase I, and using that strategic plan to create annual work plans to guide and focus work in future years
- Piloting a method for establishing priority species for EDRR and control to focus education and treatment efforts
- Participating in monthly CISMA calls and the FLCISMAS list-serve to share and learn about common problems and solutions with other CISMAs' participants.
- Funding the development of more tools and resources available to participating members:

  - EDRR identification weed decks and treatment handouts
  - Cooperative workdays to provide training and treat EDRR species
  - Training workshops with CEUs provided
- Remaining in contact with members via email, updating the website to include current projects and calendar items, and began tweeting @HeartlandCISMA.

Heartland CISMA Phase III Results

During Phase III many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

Heartland CISMA Phase III Workdays and Volunteer Events

For the first time, the Heartland CISMA conducted partner workdays listed below to treat a priority EDRR species, coral ardisia, training partners and Ridge Ranger volunteers in identification and treatment and with press coverage in The Ledger (local area newspaper).

- Allen David Broussard Catfish Creek Preserve in January, 2012.
- At the Lake Wales Ridge State Forest on two separate tracts, in January and February, 2012.
- Ridge Ranger volunteers mapped and treated invasive non-native species during 13 workdays on 10 properties throughout the CISMA.

Figure 21 - Heartland CISMA Workday

Heartland CISMA Phase III Meetings and Trainings

- September, 2011, the Lake Wales Ridge Ecosystem Working Group focused on invasive species topics and the CISMA provided speakers to discuss: Early Detection and Distribution Mapping System (EDDMapS), Argentine tegu lizards, and laurel wilt disease. FWC visited three locations in the CISMA where tegu lizards or tracks had been reported recently to develop a response strategy.
- January, 2012, a general meeting voted to accept the 2011 annual report, the 2012 work plan, the new co-chair and steering committee. CISMA members also discussed pursuing options to conduct a biennial aerial survey to find remote infestations of Old World climbing fern within the CISMA:
  - Aerial surveys of invasive plants were conducted during Phase I using direct flight assistance from Avon Park AFR. The CISMA membership is working on conducting these surveys again during Phase III.
  - Worked with staff at Avon Park AFR to submit a proposal to Patrick AFB to request assistance in conducting aerial surveys of invasive plants, primarily Old World climbing fern in exchange for providing training similar to search and rescue. This proposal was not funded.

- Conducted pilot survey of northwestern Green Swamp with LightHawk, a volunteer pilot service aiding conservation, and presented the possibility to the CISMA members.
- Shared the results of an aerial survey of central Florida conducted by the National Park Service and South Florida Water Management District in 2010 to map invasive plants in survey plots.
- Shared the results of an aerial survey of Southwest Florida Water Management District properties and buffer area conducted by SWFWMD to detect Old World climbing fern infestations in January and February, 2012.

Training workshops were very popular in Phase II and three were held and well-attended in Phase III, attracting participants from more organizations and a wide geographic range:

- Organized Heartland CISMA invasive grass identification and treatment workshop in October, 2011 for 44 attendees at Circle B Bar Reserve.
- Conducted an Invasive Plant Identification and Control Workshop with the Forest Stewardship Program and Heartland CISMA partners in November, 2011, training 48 participants to rave reviews, with one contractor saying that this was the best workshop on this topic he had ever attended.
- During National Invasive Species Awareness Week (NISAW), the Heartland CISMA again went above and beyond. This was a collective effort by the entire membership to raise awareness among the membership and the general public and providing training to professionals. Activities included:
  - Conducted 2nd annual Central Florida Invasive Species Workshop in March, 2012, with 66 participants including those from four other CISMAs from Flagler to Martin counties, with talks and hands-on training about invasive issues and CEUs for participants.
  - Renewed the Early Detection Scavenger Hunt, a contest with prizes for the most high priority invasive species reported from August, 2011 through February, 2012. Awarded prizes to winners, increasing reports to IveGot1.org from all four of the original Heartland CISMA counties, and enabling follow-up on high priority invasive species that were reported.

Several general membership meetings were held in Phase III. In November 2010, a Heartland CISMA meeting took place and a steering committee and subcommittees were formed. In addition, an identification guide to the top-ranked EDRR species was developed and disseminated. A subcommittee met in December to plan events to be included as part of Polk County Environmental Lands Program's "invasives"-themed month in February.

During the April meeting, members focused on outreach and education in order to sign up volunteers for subcommittees, share information, and disseminate new USFS guides to identification and management of invasive species in southern forests. Additional meetings provided the CISMA members with specific EDDMapS training in order to show members how to set up alerts to get early notification of invasive reports in the CISMA as well as alerted members about a new invasive species, *Phyllanthus fluitans,* identified south of the CISMA on the Peace River.

Lastly, after Laurel wilt disease, an invasive pest/pathogen complex that attacks trees in the Laurel family, was detected in Highlands and Polk counties, specific outreach was provided to the CISMA including information regarding the types of trees that could be affected, what to look for, who to tell, prevention, and how to get the word out.

On behalf of the Heartland CISMA, a presentation was given at the Florida Exotic Pest Plant Council Symposium entitled, “Aerial surveys of invasives on the Lake Wales Ridge: Limitations, lessons learned, and lots of value.”

Heartland CISMA Calendar Year 2011 Report and 2012 Work Plan

The Heartland CISMA 2011 Annual Report and 2012 Work Plan was submitted to the DoD Legacy Program in March 2012. The 2012 annual work plan was drafted by a committee during a December, 2011 conference call and was adopted by the CISMA during a meeting in January, 2012.

Heartland CISMA Monitoring and Control Projects

Heartland CISMA Phase II Post-treatment Monitoring

The Heartland CISMA Monitoring Report was delivered to the DoD Legacy Resource Management Program in December 2011.

Heartland CISMA Phase III Control Project

The Phase III control project treated Old World climbing fern on a private property that was identified by Avon Park AFR as a spore source. This project was an excellent example of leveraging funding with partners. The DoD Legacy Program Project provided $2,000 for this treatment but with additional funding of $8,000 from USFWS Partners for Fish and Wildlife a much larger project was able to be completed for greater benefits for DoD. This property abuts Avon Park AFR and there have been shared infestations of Old World climbing fern and cogon grass across the fence line. A contractor was hired and surveyed 155 acres and treated Old World climbing fern in April, 2012. A plan has been established for TNC’s Central Florida ERT to treat the cogon grass using other funding, and there are plans to treat both species on the Avon Park AFR side of the fence in summer 2012. Treatment on the private property has begun removal of a spore/seed source to enable treatment on the Avon Park AFR side to be more effective, and the private landowner has agreed to conduct follow-up treatment on his property which is now possible after the initial work is completed. This coordinated effort across the fence line makes the work done on each side more effective and has strengthened relationships in the region, not only for these neighbors but also for other neighboring landowners, like the Lake Wales Ridge State Forest, working to control the same species.

Heartland CISMA Phase III Control Project Photo Monitoring

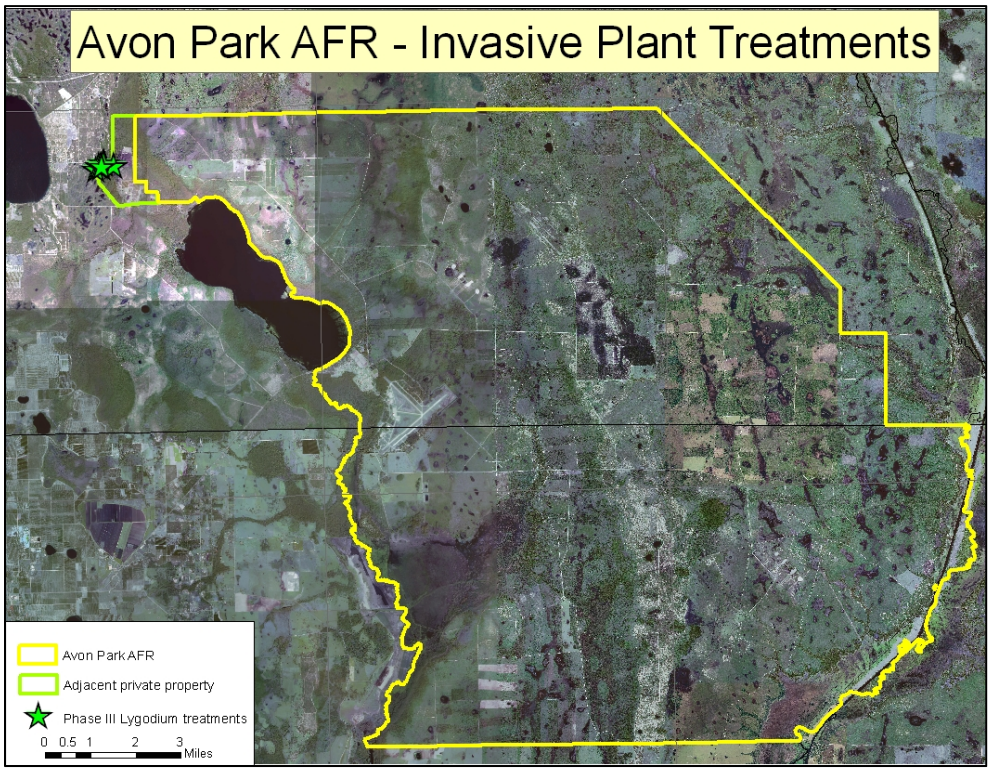


Figure 22 - Heartland CISMA Phase III Control Projects Map

Figure 23 - Heartland CISMA - before and after treatment of Old World climbing fern on private land adjacent to APAFR - (untreated Old World climbing fern on Avon Park AFR side of the fence to be treated by a contractor)

Figure 24 - Heartland CISMA - before and after treatment of Old World climbing fern on private land adjacent to APAFR

Figure 25 - - Sherman fox squirrel documented on the private land adjacent to Avon Park AFR in pine flatwoods

Cape Canaveral AFS and Patrick AFB / East Central Florida CISMA

ECF CISMA Project Manager, Mike Renda, TNC

Highest-threat invasive non-native species include: cogon grass, Brazilian pepper, Australian pine, and climbing ferns

Quote by Don George, Cape Canaveral AFS/Patrick AFB, Natural & Cultural Resources Manager

"Being involved in the CISMA keeps me current and up-to-date on where and what is happening with invasives in Florida". Don George also presented a DoD/CISMA poster during the poster session at the National Military Fish & Wildlife Association's annual workshop in March, 2012 and said "the poster was very well received and an electronic copy was requested and sent to Mr. Peter Boice, OSD/ATL, and Dr. Peter Egan, with the Armed Forces Pest Management Board. In addition, Dr. Egan requested Mr. George make a presentation on the CISMA and present the poster at the next DoD Pest Management Symposium to be held at NAS Jacksonville in February 2013".

ECF CISMA Summary

The East Central Florida (ECF) CISMA was newly created in Phase II and supports efforts on and adjacent to Cape Canaveral Air Force Station (AFS) and Patrick AFB on the Central Atlantic Coast of Florida. The Florida counties involved in the CISMA include: Brevard, Flagler, Putnam, and Volusia. The ECF CISMA has co-chairs, a steering committee, and subcommittees with good representation from county, state, federal agencies and non-governmental organizations (NGOs). An ECF CISMA Five-year Strategic Plan, 2011 Annual Report, and 2012 Annual Work Plan were created as deliverables for this project.

In Phase II and III, the ECF CISMA coordinated several cooperative multi-agency workdays with DoD and many participants. The benefit of a workday approach is that it brings partners together to demonstrate commitment to land management, provides staff an outlet to discuss technical details, and aids in developing professional relationships across agencies. Cape Canaveral Air Force Station suggested working on the Coastal Jewel/REPI (Readiness and Environmental Protection Initiative) land site because it was currently unclear which agency, DoD or Brevard County, was going to manage invasive plants. More specifically, success for Cape Canaveral AFS/Patrick AFB with moving forward with future REPI projects depends on the ability to demonstrate to the Brevard County Commissioners that management costs will not be solely the responsibility of the county. Cape Canaveral AFS/Patrick AFB thinks a cooperative effort with the CISMA would be very beneficial in convincing the county commissioners. Brevard County owns the 184 acre Coastal Jewel site with the U.S. Air Force through REPI having a 101 acre conservation easement. These workdays were of significant benefit to Cape Canaveral AFS/Patrick AFB and another partner, the Brevard County Environmentally Endangered Lands program.

During Phase III of this project the ECF CISMA created an EDRR plant species list. Ten of the selected species have been included in ECF CISMA EDRR weed deck cards.

The ECF CISMA has a strong commitment to invasive species outreach and education. The ECF CISMA has created a working draft logo, given presentations at meetings and environmental events,

coordinated volunteer workdays, held trainings for members, and maintained an active website development committee.

Sustaining the ECF CISMA

Leadership of the East Central Florida CISMA has been transferred to co-chairs with the Florida Fish and Wildlife Conservation Commission and the Army Corps of Engineers.

Sustaining this CISMA in the future will require strong leadership at multiple levels, good participation throughout the geography, and assistance and support from the Florida Invasive Species Partnership (FISP). The DoD Legacy Programs' support for deliverables in the last two years (Five-year Strategic Plans, Annual Work Plans, and workday exercises) have created a good foundation for the ECF CISMA to sustain in the future.

The ECF CISMA is young, having been created in June 2010, but has developed with leaders in positions as co-chairs, subcommittees, and workday and website coordinators. The CISMA has good participation throughout it's geography from local, state, and federal partners. The CISMA is well connected with FISP and FLEPPC. The CISMA chair and our DoD partner from Cape Canaveral AFS particpated in the CISMA session at the FLEPPC Symposium last April. The CISMA chair has also participated on FISP monthly CISMA calls.

The cooperative multi-agency workday approach has been utilized well with ECF CISMA in the last two years. Staff and volunteers from local, state, federal and NGO's have enthusiastically particpated, including transfering technical invasive management information to each other. Air Force personnel have participated in these workdays and are coordinating the next ECF CISMA invasive plant workday at Port Canaveral, near Patrick AFB. The current plan is to treat Brazilian pepper along the Cape's south boundary fence line. Canaveral Port Authority owns the land and Florida Power and Light owns the right-of-way for the primary power for the Air Force Station. This project benefits DoD by increasing military installation security.

ECF CISMA Phase III Results

During Phase III many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

ECF CISMA Phase III Workdays and Volunteer Events

- Attended Wildflower Festival in DeLand, Florida to provide education about invasive species and the ECF CISMA.
- Gave an ECF CISMA/FISP presentation at the 2012 Florida Vegetation Management Association meeting in Daytona Beach, Florida.
- Held two EDRR workdays on April 18th and July 12th on the St Johns River hand removing

Figure 26 - ECF CISMA Workday

and bagging 665 lbs. of *Nymphoides cristata* with Volusia County, St. Johns River Water Management District and FWC.
- Held an air potato raid at Lake Beresford in conjunction with local Volusia County staff and volunteers and Stetson University in February.

Special Early Detection/Rapid Response (EDRR) Workday In May, 2012 Volusia County and ECF CISMA partnered to have a multi-agency workday specifically targetting an ECF CISMA EDRR species, prickly Russian thistle. This invasive plant has been establishing from South Daytona to across the inlet into New Smyrna Beach. Fifteen volunteers from FWC, UF-IFAS Extension, Volusia County, Zev Cohen Associates, participated on the workday by hand pulling and filling 23 large bags of thistle. No Russian thistle has established on Patrick AFB or Cape Canaveral AFS beaches as of May 2012.

Figure 27 - ECF CISMA – before and during removal of Russian thistle on Volusia County beach

ECF CISMA Phase III CISMA Meetings and Trainings

ECF CISMA General Membership Meetings
- Held all-partner meetings in October in Oak Hill, Florida and February in Deltona, Florida.
- Selected the ACOE as the new ECF CISMA co-chair.
- Created a Website Committee to coordinate ECF CISMA website submissions and appearance.
- Created working drafts for an ECF CISMA logo and outreach brochure.
- Drafted an EDRR species list from CISMA member participants and a survey.
- Designated the Volusia Soil & Water Conservation District address for all ECF CISMA mail

Education/NISAW event
The ECF CISMA celebrated National Invasive Species Awareness Week (NISAW) in February 2012, by having a business meeting in the morning and then an education program in the afternoon. The meeting was attended by approximately 28 participants with local, state, federal and NGOs participating. The business meeting brought members “up to speed” on the CISMAs tasks, like EDRR lists, logo creation, brochure update, annual workplan, and all the outreach and workday events, including the proposed special workday at Port Cape Canaveral being organized by DoD. A new ECF CISMA co-chair was also elected. The afternoon education program consisted of identication and biology of four EDRR plant species, a non-native mosquito presentation, a FWC Invasive Plant Management Program presentation, EDRR presentations from three adjacent CISMAs, and a UF IFAS herbicide control training.

Invasive Plant Weed Decks
Invasive plant deck cards for the ECF CISMA were also created during this year as an extra product. These weed deck cards include 10 invasive plant species that were ranked as early detection/rapid response species for the CISMA, including DoD lands. These 100 weed deck cards will be distributed to DoD and ECF CISMA members in the summer of 2012.

ECF CISMA Calendar Year 2011 Report and 2012 Work Plan

The ECF CISMA 2011 Annual Report and 2012 Annual Work Plan was submitted to DoD Legacy Program in March 2012. The ECF CISMA approved the 2012 Annual Work Plan in February, 2012. Drafts of the workplan were reviewed by members beginning in October, 2011. The workplan utilized the existing Statewide CISMA template and then incorporated specific tasks that members suggested. The final 2012 workplan was completed in March, 2012, and then placed on the CISMA website.

ECF CISMA Monitoring and Control Projects

ECF CISMA Phase II Post-treatment Monitoring

The ECF CISMA Monitoring Report was delivered to the DoD Legacy Resource Management Program in December 2011.

ECF CISMA Phase III Control Projects

The East Central Florida CISMA (ECF CISMA)'s multi-agency partner workday control project in November, 2011 was on the Fox Lake Sanctuary in northern Brevard County. Brevard County owns and manages this 2,568 acre site. Twelve participants from Brevard County, DoD, USFWS, FWC, TNC, Student Conservation Association, and one volunteer assisted. Two acres of invasive plants were treated on the Fox Lake Sanctuary, most of which were Chinese tallow but also included Brazilian pepper and Old World climbing fern.

The Fox Lake Sanctuary was selected as a cooperative workday and as the DoD Legacy Phase III project for several reasons. First, our DoD partner from Cape Canaveral AFS liked this site for a workday because it would demonstrate to Brevard County Commissioners that land management will be completed within the county, and that new-partner efforts, like the CISMA, are underway to make this successful. Second, because this site is new and invasive and fire management programs are just developing.

In April, 2012 the Fox Lake Sanctuary land manager and CISMA manager visited the worksite to inspect the treatment. The 35% Garlon 3A herbicide treatment was fairly successful, especially on Brazilian pepper of all sizes, and on small Chinese tallow. However, large tallow trees were leafing out with deformed leaves, and some smaller tallow were apparently missed. It was concluded that the tallow trees may survive and therefore it was best to retreat. We proceeded to treat 15 large and 25 saplings of tallow with 15% Garlon 4 and hand pulling 75 seedlings. Several hundred more tallow seedlings were foliar treated as well.

It was concluded that the Garlon 3A treatment was not sufficient enough and either the rate should be increased to the standard 50%, or Garlon 4 should be used. In addition, the site is going to need

another follow-up treatment in 3-6 months for tallow seedlings. The Brevard County North Land Manager and his staff were involved in this project from the start, and are responsible for the follow-up treatments.

ECF CISMA Phase III Control Project Photo Monitoring

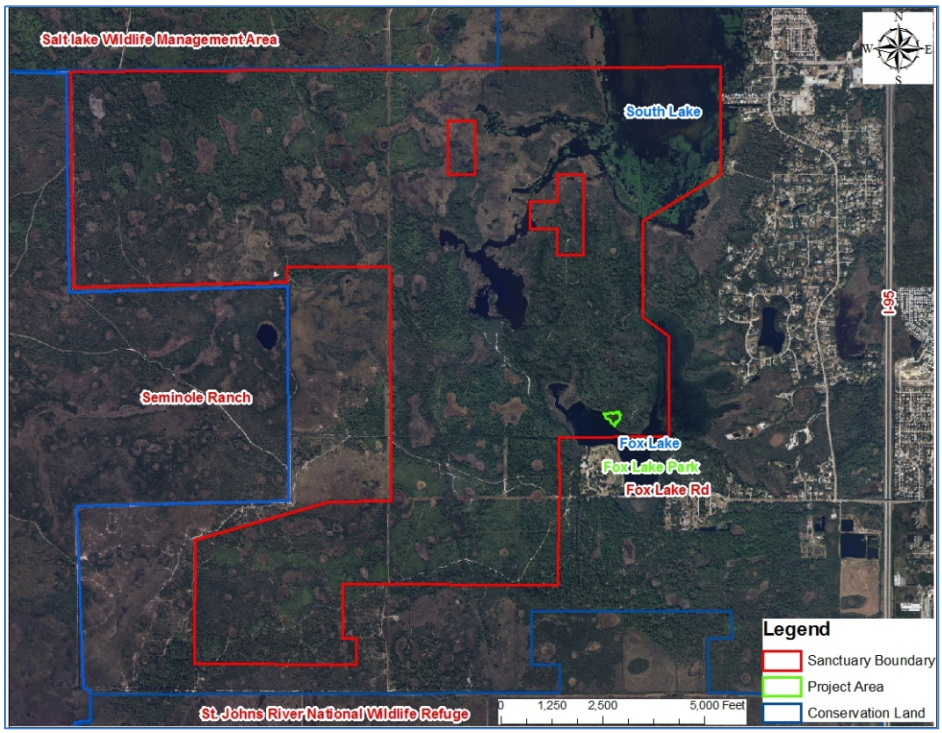


Figure 28 - ECF CISMA Phase III Control Projects Map

Figure 29 - ECF CISMA – Fox Lake Sanctuary before and after treatment of Chinese tallow

Figure 30 - ECF CISMA – Fox Lake Sanctuary before and after treatment of Chinese tallow

NAS Key West / Keys CISMA

Keys CISMA Project Manager, Alison Higgins, Institute for Regional Conservation

Highest-threat invasive non-native species include: Australian pine, Colubrina, Scaevola, Guinea grass, air potato, lionfish, and large, non-native snakes (e.g. Burmese python)

Quotes by Carrie Backlund, NAS Key West, Environmental Projects Manager
"We are very glad to have a seat at the table of the Keys CISMA steering committee. Many folks don't know how much conservation land we maintain, and what little resources we have to do so. Buffer lands projects like this one have not only helped the endangered Lower Keys Marsh Rabbit, but also with our relations with the community that surrounds us."

Keys CISMA Summary

The Florida Keys CISMA was organized in early 1996 to address the proliferation of invasive non-native plants in the Florida Keys and now supports efforts on and adjacent to NAS Key West. Invasive animals were added to the group's mission in 2005 in response to the Burmese python invasions in Key Largo, and in recognition of the need to get in front of other looming animal issues. The Keys CISMA is composed of biologists, planners, and natural resource managers from local, state, and federal agencies, non-profits and public utilities, as well as concerned citizens.

Although the Keys CISMA has been in existence for many years, it has made great strides during this DoD Legacy Program Project. During Phase I the group created the first EDRR list, where the membership specifically evaluated invasive non-native species near their borders to create the prioritized EDRR list. This list helped reinstate group workdays, which focused on EDRR, and included training for partners on the identification and eradication of the new plants. Phase I also marked the beginning of work on NAS Key West buffer lands with a multi-partner site visit and subsequent community workday.

Phase II brought significant improvement in organization and division of labor. Since its inception, the Keys CISMA has been chaired by TNC. During Phase II, the group discussed and selected a steering committee and co-chair structure to better represent the larger land holders and spread the workload. This new steering committee took on the group's first strategic planning effort and created a five year plan. This helped the membership qualify and prioritize goals and what steps were needed to achieve them. It also allowed the creation of discrete tasks that members felt able to volunteer for, rather than take on a large five-year project. This made the creation of the first Annual Work plan painless and well-prioritized. The NAS Key West buffer lands project held another community workday, completing removal on the private lands side and planting native plants to speed the restoration.

Phase III was a very rewarding year because the group produced its first Annual Report. Many partners remarked on how proud they felt having all of the efforts summarized and how beneficial this document was for them, including being able to share the accomplishments with higher management. In creating the second Annual Work plan, much was learned about creating realistic expectations and lessons-learned were used to update the Five-year Plan. By this time, the co-chairs and steering committee had settled into their roles and were keeping the whole group running smoothly. One of the new co-chair's stated, "While I was nervous about taking on the co-chair role at first, I was soon at ease because of how well the rest of our Task Force members raised their hands to help out. We're ready for a new era."

During the DoD Legacy Program project, the larger networking aspect that this funding allowed was also extremely beneficial to the Keys CISMA. Rather than feeling like the CISMA was operating in a vacuum, the monthly Florida-wide webinars and periodic sharing with other partners provided advice and perspective.

Sustaining the Keys CISMA

Leadership of the Keys CISMA has been transferred to co-chairs with Monroe County and the Florida Department of Environmental Protection.

The five member steering committee is well-established and going strong. TNC during the past six months purposely facilitated the CISMA more than led as part of the strategy to transition the lead efforts to partners. The co-chairs have established a good division of labor and have instigated a "reminder of tasks" email that goes out two weeks before the upcoming meeting, to better prepare members and keep the meetings productive. Also, since the transition to co-chairs the volunteer workdays have expanded as now one of the co-chairs leads an upper keys workday and one leads a lower keys workday.

The Annual Plan workshop helped further divide and transition duties that TNC staff had handled previously. The steering committee and members thoughtfully meted out tasks and timelines so as not to overload any one member. The group decided that rather than put any one member in charge of a whole subject matter, it was more important to put people in charge of discrete tasks. Partners were much more likely to sign up if they knew the boundaries for which they were volunteering.

The biggest challenge is staying on schedule with the Five-year Strategic Plan, as it was created when more partners were available to provide more support. As a result, some items may be

delayed, but the CISMA is still dedicated to the plan. We are especially excited to take on our first invasive animals ranking list this fall. The Keys CISMA has a long history of reviewing and prioritizing exotic plants by how invasive they are locally, but had yet to apply the same methodologies to exotic animals. The group will research and review fecundity, native range, invasiveness elsewhere, current population status, potential damage, and a host of other parameters to better prioritize prevention, early detection/rapid response, and control efforts.

For future on-the-ground work near NAS Key West lands, a very strong partnership between NAS Key West and the Institute for Regional Conservation (IRC) is been established to assume most of the invasive projects. With the ability to work on both public and private lands, IRC will continue to be a strong partner to NAS Key West for the military base and buffer lands.

Keys CISMA Phase III Results

During Phase III many advances were made to strengthen the CISMA and provide additional assistance to DoD and partners including:

Keys CISMA Phase III Workdays and Volunteer Events

The NAS Key West buffer lands project shifted gears to work on the DoD lands directly abutting the private lands project and led to an invasives-free corridor for the endangered Lower Keys marsh rabbit. Although it was possible to contract the job, it was discussed and decided to purposely involve local volunteers and partners so that the area could be maintained by the people that love it and visit regularly. Judging by how invasives-free the areas from Phase I and II are now, the plan is working.

Figure 31 - Keys CISMA Workday

A workday was held in May, 2012. Eight partner organizations and 12 volunteers assisted with invasive plant removal, training, and education. Approximately one linear mile on the NAS Key West side received initial eradication, and two miles along the beach received a maintenance sweep. The NAS Key West side had a few, large infestations of Brazilian pepper and Asiatic colubrina, as well as numerous small infestations of beach naupaka. The beach side, treated during Phases I and II, was impressively clean, yielding only one or two young Australian pine, Brazilian pepper, beach naupaka and night blooming cactus. Much of the plant material was hand pulled (mostly Scaevola and yellow alder). Plants that were too large for manual removal were sprayed with Garlon 4.

Keys CISMA Phase III CISMA Meetings and Trainings

On-the-ground accomplishments over the entire three year project included annual trainings in invasive non-native species identification and herbicide handling. Every other year, the membership holds a ranking meeting to evaluate the invasiveness of regionally invading plants, resulting in our own localized invasive non-native species list.

For prevention efforts, assistance was provided with FWC's annual Pet Amnesty day (by organizing local collection stations and transportation to the Miami event) and increased outreach to local plant nurseries about the GreenThumb Certified program. "GreenThumb Certified" Nurseries educate clientele about the "Keys Friendly" landscaping principles.

Keys CISMA Calendar Year 2011 Report and 2012 Work Plan

The Keys CISMA 2011 Annual Report and 2012 Work Plan was submitted to DoD Legacy Program in March 2012. The 2012 Annual work plan was completed and approved during the February meeting.

Keys CISMA Monitoring and Control Projects

Keys CISMA Phase II Post-treatment Monitoring

The Keys CISMA Monitoring Report was delivered to the DoD Legacy Resource Management Program in December 2011.

Keys CISMA Phase III Control Projects

Phase II had completed the NAS Key West buffer lands work along Boca Chica beach, prime habitat for the Lower Keys Marsh Rabbit. Phase III broadened our project to include the linear infestation of Asiatic Colubrina, Brazilian pepper, night blooming cactus, yellow alder, and beach naupaka along the NAS Key West lands across the road. NAS Key West was very appreciative of this help, as much of their funding and time was tied up in a large mitigation project nearby. This Phase III piece helped link these areas and expand the effectiveness of both projects.

Since this was the final phase of the project, partners and public were involved with touring the entirety of the project's past and training for future maintenance. Monroe County and the private landowners that own property along the buffer zone were joined by volunteers from Save A Turtle, our local sea turtle nest monitoring nonprofit, to learn to recognize invasive seedlings and sprouts so that they can pluck them before they get out of control. Staff from USFWS took the group to survey the areas for signs of Lower Keys Marsh Rabbit and declared that the area was being used far more than in the past. The entire group was treated to the sight of three rabbits scampering away as we made the tour. Many in the group expressed surprise when shown photos of the area before Phase I and II efforts, marveling at how well the planted and existing natives had filled in.

Keys CISMA Phase III Control Project Photo Monitoring

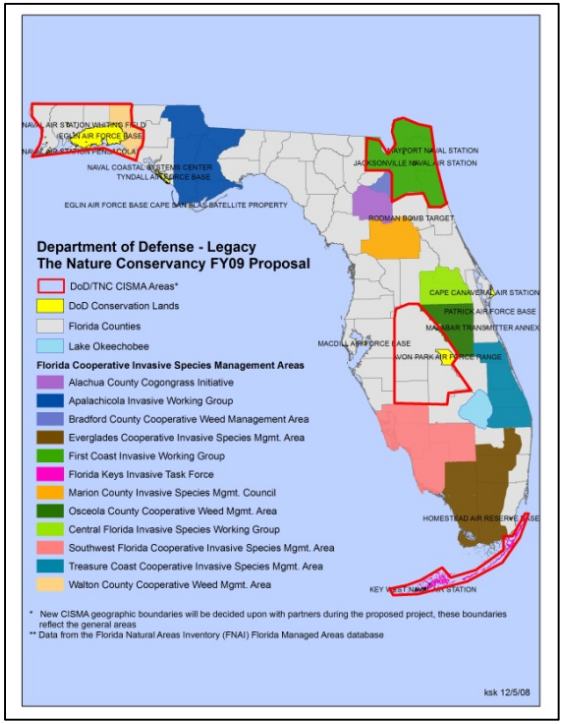
Figure 332 - Keys CISMA - Boca Chica Phase III Control Projects Map (note NAS Key West runway bordering site)

Figure 323 - Keys CISMA – before and after treatment of *Asiatic colubrina* along NAS Key West side

Figure 34 - Keys CISMA – after treatment of Brazilian pepper along NAS Key West side (before picture unavailable)

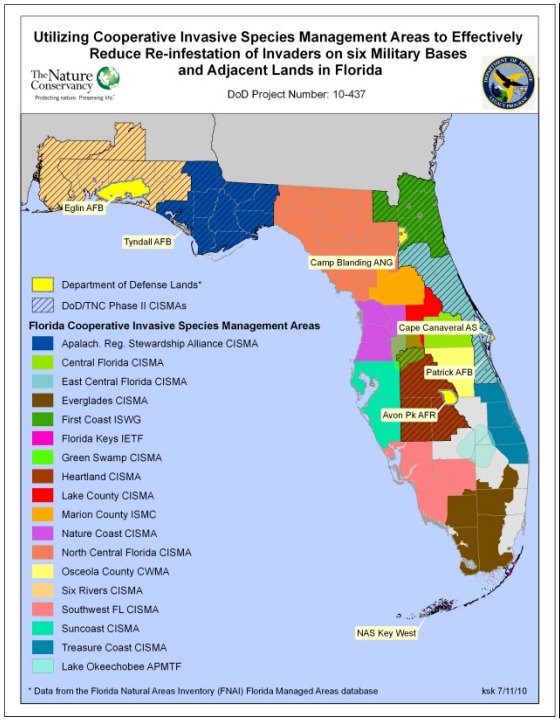
Figure 35 - Keys CISMA - State threatened sea lavender expanding into previously infested beach area treated during this project

Appendix A – Florida CISMA Maps from Phase I to Phase III



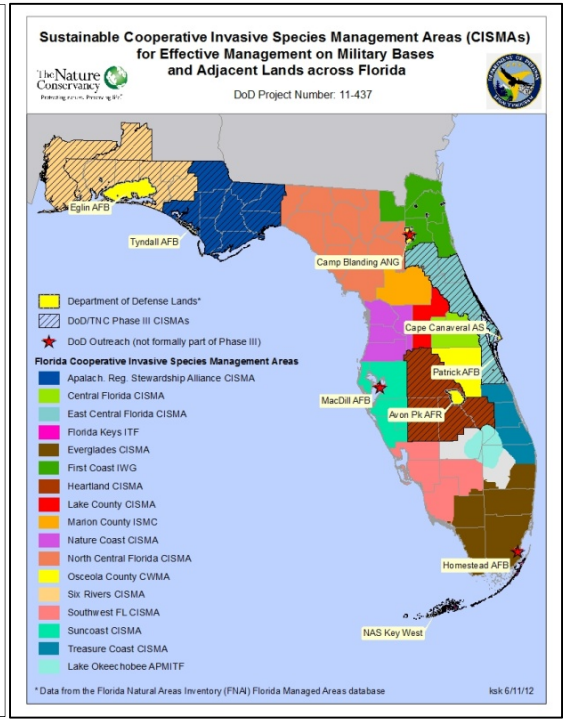
Florida CISMAs FY09

Phase I



Florida CISMAs FY10

Phase II



Florida CISMAs FY11

Phase III

Appendix B – Outreach Tool – CISMA Organization Chart and Job Descriptions

Workshop - How to Sustain a Cooperative Invasive Species Management Area

Kristina Serbesoff-King – Associate Director of Conservation, The Nature Conservancy
Erin Myers – Private Lands Biologist, US Fish and Wildlife Service
April 17th, 2012, Florida Exotic Pest Plant Council/Florida Chapter of The Wildlife Society joint annual symposium - http://fltws.org/STD2012SpringConference.php

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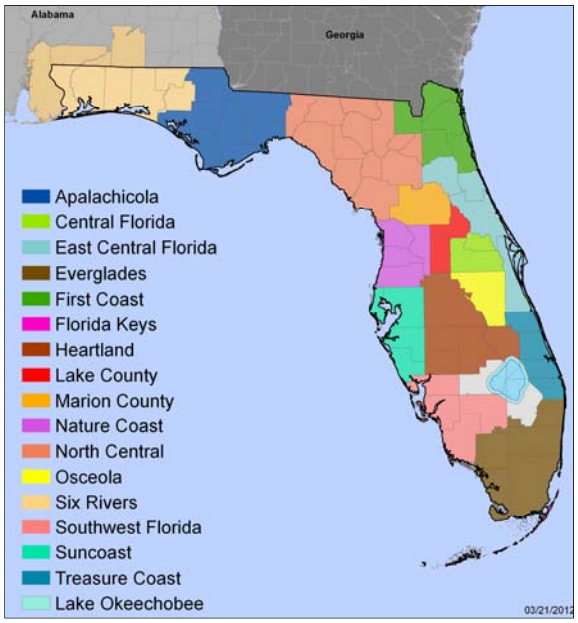
Purpose: This workshop was focused on sustaining long term Cooperative Invasive Species Management Areas (CISMAs) in order to facilitate effective management of invasive species that threaten Florida's wildlife habitats, working lands, natural communities and biodiversity. The more specific focus of this workshop was to develop guiding principles for the roles and responsibilities within the CISMA. To sustain individual CISMAs in Florida over the long-term, we need to develop clear expectations of the roles of the different positions as well as the general membership. Having a clear set of guiding principles will set realistic expectations and generate additional capacity.

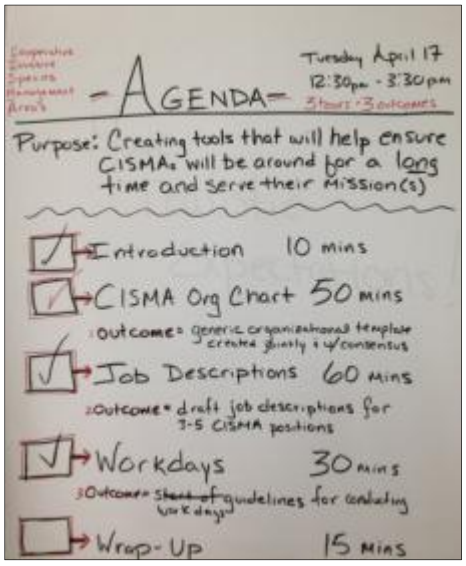


Background: CISMAs are partnerships to manage invasive species in geographically defined areas of Florida (http://www.floridainvasives.org/cismas.html). To date, 17 CISMAs have been formed across the state, including 66 of Florida's 67 counties. The Florida Invasive Species Partnership (FISP) supports CISMA development with monthly webinars, website and work plan guidance, strategic plan templates, and an annual CISMA session at the Florida Exotic Pest Plant Council Symposium where experiences are shared.

Attending: Members of all of Florida's 17 CISMAs were invited to participate in this workshop. Twenty-five members participated representing 14 CISMAs, multiple local, state and federal agencies as well as private entities and non-profits.

Resource: At the end of this document is a 3 page "tear-out" section that includes only the generic CISMA organization chart and the job descriptions that were created during this workshop. These can be used by CISMAs and other invasive species partnerships throughout the nation to assist with developing these roles in their partnerships and are posted at http://www.floridainvasives.org/howto.html, under the header "How to Create and Sustain a CISMA/CWMA."

Results of Workshop



1) Desired Outcome = CISMA Organizational Chart ☑

<u>Group Exercise: What are all the positions of the CISMA organization that need to be considered?</u>

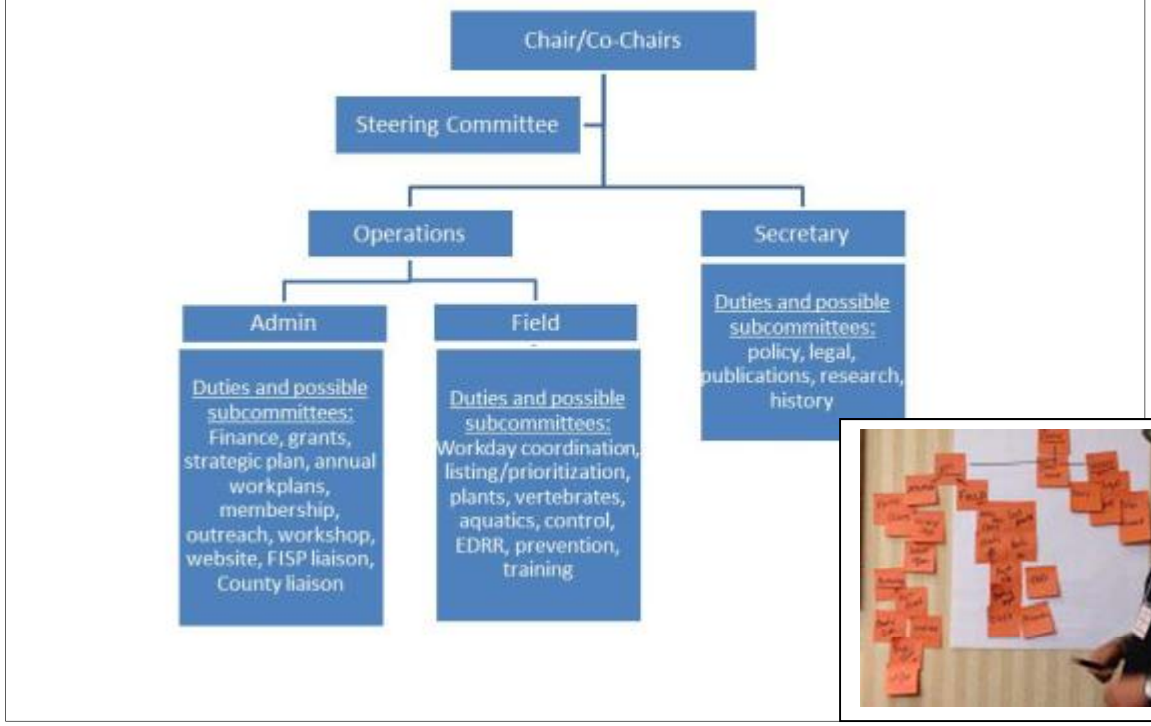
Our first step was an entire group listing exercise to think about all of the jobs/roles/positions that could be involved in running a CISMA. Below is the result of our first exercise. While it has some duplication, it provided us with a great, comprehensive list to launch us into our next exercise.

- Co-chairs/Chair
- Steering Committee
- Secretary
- Outreach subcommittee
- Early detection/rapid response, Prevention, Control subcommittee
- Prevention subcommittee
- Membership subcommittee
- Webmaster
- Newsletter/publications chair
- Finance subcommittee/treasurer
- Training subcommittee
- Grant writer
- Research subcommittee
- Workday coordinator
- Policy liaison
- Strategic planning subcommittee
- Historian
- Prioritization (listing) subcommittee
- Animals
- Workshop
- Legal
- County liaison
- Operations subcommittee chair
- Annual workplan/report
- FISP/CISMA liaison
- Aquatics
- Control

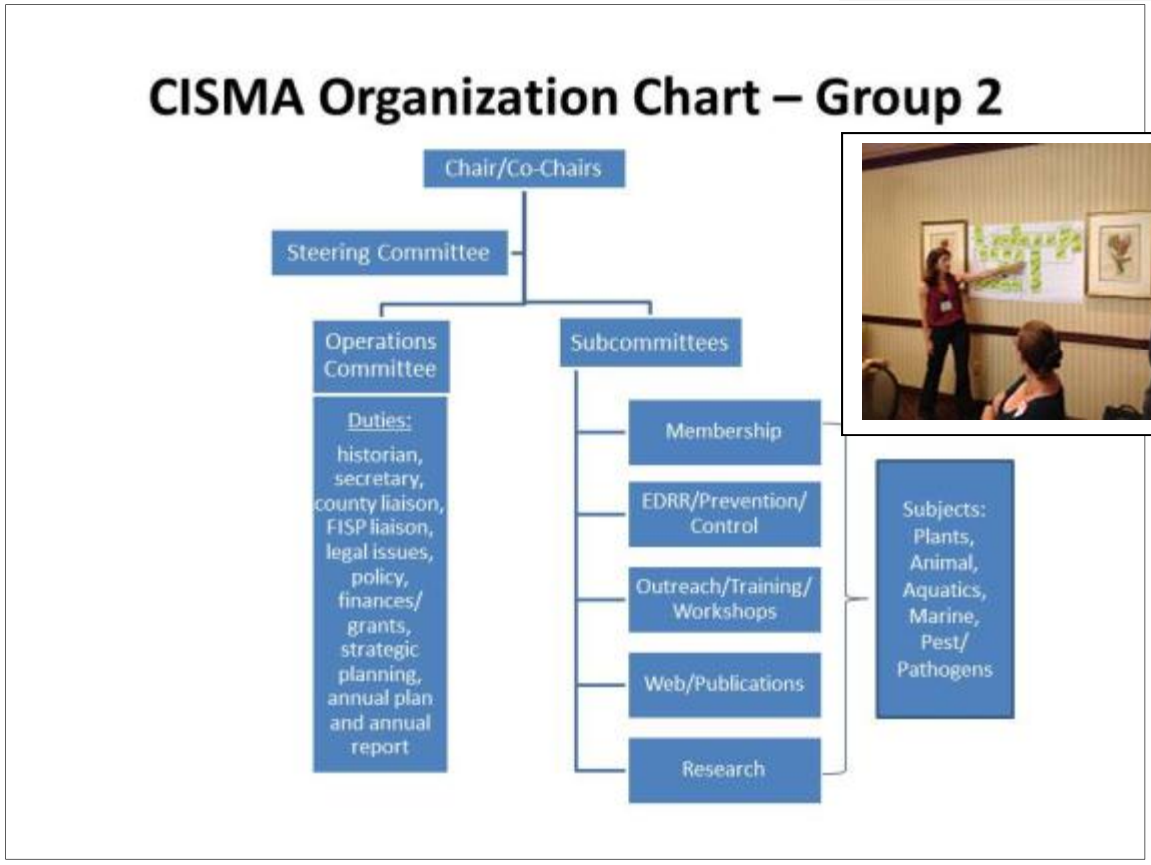
<u>Breakout Exercise: Building an organizational chart (4 groups)</u>

After the group developed the list of roles, four breakout groups were formed to take these roles and organize them into an organizational chart/structure for a generic CISMA. The breakout groups were encouraged to think about how some roles might be consolidated and how the roles would be connected. Each group explained their template to the broader group, taking time to identify hierarchy and connections.

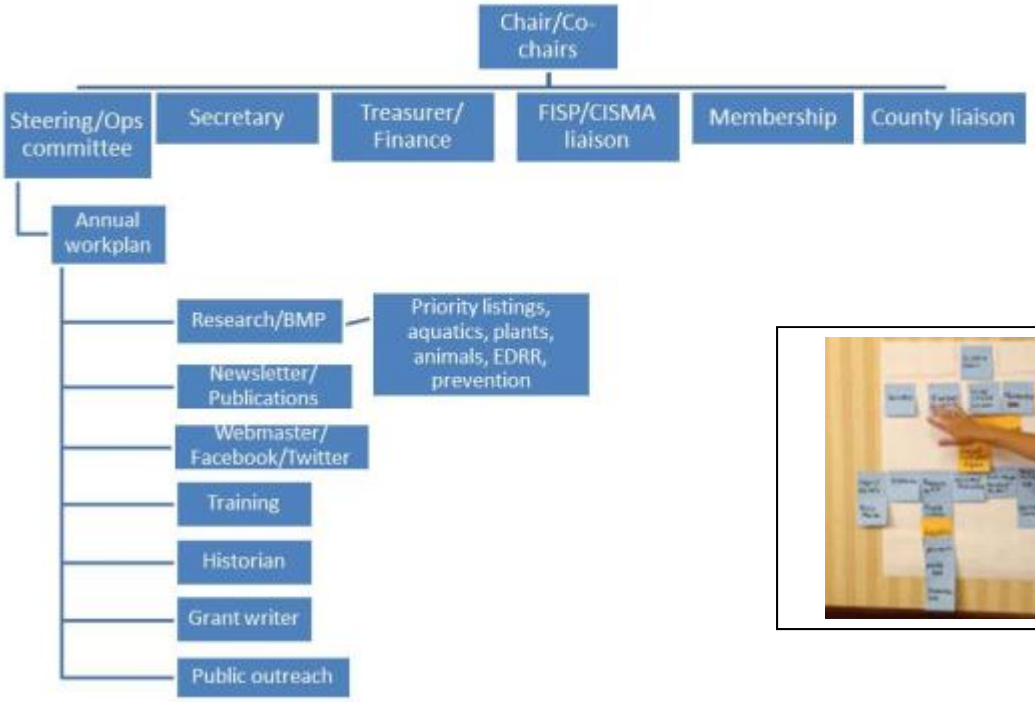
CISMA Organization Chart – Group 1



CISMA Organization Chart – Group 2



CISMA Organization Chart – Group 3



CISMA Organization Chart – Group 4

Re-group exercise – Consensus organizational chart

The large group re-convened and compared the four different organization charts. The group agreed on a simplified organization chart that identified the critical roles of a CISMA. It was thought that a strong CISMA should have these roles filled as a bare minimum for their partnership. Additional roles may be added depending on the activities of each CISMA.

2) Desired Outcome = Draft job descriptions for 3-5 CISMA positions ☑

Group Exercise: What are the key elements of each CISMA job?

The group was given several different examples of volunteer job descriptions to read ranging from a youth camp counselor to board and committee position descriptions for a Parent-Teacher Association. Afterwards we discussed what was good about these descriptions and what was missing. We then engaged in a group listing exercise to identify the key elements of a CISMA job description and then listed responsibilities for each of the CISMA roles that had been agreed on in the group consensus organizational chart: 1) Chair/Co-chairs, 2) Steering Committee, 3) Operations Committee and 4) Outreach Committee.

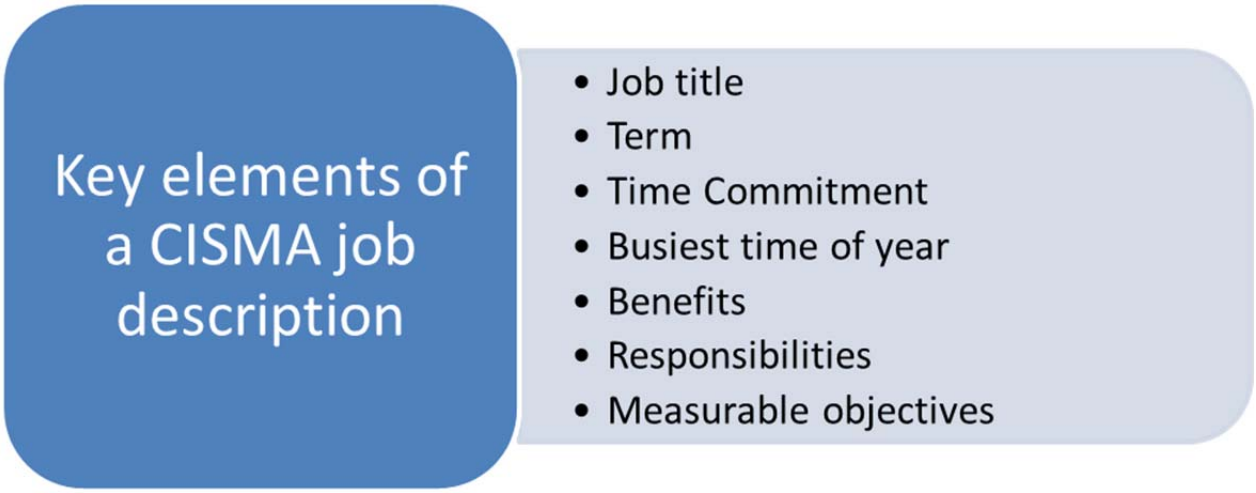
VOLUNTEER JOB DESCRIPTION

Does a volunteer really need a job description? Isn't that too formal and involve too much paperwork?

It is as important to have a clear job description for a volunteer as it is for a full-time employee. Without an accurate project outline in the beginning, the chances for confusion and disappointment multiply rapidly. A disappointed volunteer is unlikely to be a repeat volunteer.

The process of writing the job description also helps you clarify your own goals and objectives so you can be sure you aren't giving the volunteer an impossible task.

-from Building a Blueprint for Change. Corporation for National and Community Service. http://www.blueprintforchangeonline.net/



CISMA Roles – listing key responsibilities for each job

- Chair/Co-chair: schedule meetings, schedule steering committee meetings, attend all meetings, run meetings/facilitate, keep CISMA focused on setting and maintaining goals [from strategic plan], delegate, recruit input from steering committee, implement direction from steering committee, keep it fun!
- Steering Committee: attend steering committee meetings, determine priorities and coordinate with chair, develop mission statement and strategic plan/annual work plan, establish geographic boundaries, create subcommittees, determine structure of steering committee, develop short list of goals, develop job descriptions, liaise with subcommittees.
- Operations Committee: prioritization, implement strategic plan, coordinate workdays, coordinate surveys and data collection, serve as main contact for early detection/rapid response, prevention and control.
- Outreach Committee: website updates, training, recruit members, publications, main contact for coordination outreach events, recruit and train volunteers for outreach, media, create and maintain outreach materials.

Breakout Exercise: Refining CISMA job descriptions (4 groups)

After the group developed the key elements of a CISMA job description and listed some responsibilities for the roles identified in our CISMA generic organizational chart, four breakout groups were formed to take these lists and refine each job description. The wealth of CISMA expertise present at this workshop aided in the development of realistic job descriptions, pulling from the actual experiences of the many Florida CISMA chairs and members present.

Chair/Co-Chairs

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	CISMA meeting intervals
Benefits	• Recognition • Networking opportunities • Shaping the future • Personal satisfaction • Professional development
Responsibilities	• Schedule and attend CISMA meetings • Facilitate/lead CISMA meetings • Oversee meeting minutes/notes • Sending out meeting notes • Delegate tasks • Coordinate with steering committee • Disseminate information relative to CISMA priorities and activities • Serve as main CISMA contact (e.g. to Florida Invasive Species Partnership, other CISMAs, general public, etc.) • Motivate CISMA membership
Measurable	• Hold at least 2 CISMA meetings per year • Convene at least 2 Steering committee meetings per year • Five year Strategic plan (every 5 years) • Annual report • Annual workplan

Steering Committee member

Term	2 years
Time Commitment	2-6 hours per month in general Additional time may be necessary if specific task is assigned. Steering committee members are asked to attend at least 75% of steering committee and CISMA meetings each year.
Busiest Time of Year	Beginning and end of each calendar year to correspond with developing annual work plan and annual report
Benefits	• Recognition • Networking opportunities • Shaping the future • Personal satisfaction • Professional development
Responsibilities	• Assist with establishing CISMA boundaries • Assist with mission statement • Assist with determining CISMA priorities • Assist with development of CISMA strategic plan and annual workplans • Act as liaison for subcommittees • Assist with goals/projects as able • Assist with creating job descriptions for subcommittee members • Assist with recruiting CISMA positions and CISMA members
Measurable	• Convene at least 2 Steering committee meetings per year • Five year Strategic plan (every 5 years) • Annual report • Annual workplan

Operations Committee chair

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	Varies, but busiest time for partnership control treatments/work days corresponds with best treatment time and non-burning season
Benefits	• Recognition • Networking opportunities • See stuff gets done = Personal satisfaction • Professional development • Learning opportunity on emerging invasive species threats
Responsibilities	• Set and hold meetings of operations committee • Develop committee/recruit committee members • Serve as main contact for reports and issues pertaining to early detection/rapid response (EDRR) species, priority control species, prevention species updates • Facilitate implementation of CISMA strategic plan and annual work plan items pertaining to EDRR, control and prevention • Coordinate surveys and data collection • Coordinate development and implementation of species prioritization protocols • Coordinate and ensure that workdays happen
Measurable	• Annual workplan (specific tasks for EDRR, control and prevention) • Coordinate at least 2 workdays per year • EDRR plant prioritization list • Control plant prioritization list

Outreach Committee chair

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	Varies, around committee meeting intervals and associated with outreach events (e.g. early March to correspond with National Invasive Species Awareness Week and April to correspond with earth day activities)
Benefits	• Recognition • Networking opportunities • Personal satisfaction • Professional development
Responsibilities	• Set and hold meetings of outreach committee • Develop committee/recruit committee members • Facilitate the development of CISMA outreach materials • Identify media outreach opportunities (e.g. newspaper, TV, radio) • Coordinate attendance of CISMA members at public events in order to promote CISMA and educate about invasive species • Serve a main contact for CISMA webmaster • Assign duties to develop, maintain and update CISMA website (through submission of information to CISMA webmaster) • Ensure that CISMA events are posted on CISMA website calendar • Coordinate CISMA training events • Coordinate with operations committee to maintain current information on CISMA operation activities • Identify volunteers to distribute CISMA information
Measurable	• Hold quarterly Outreach committee meetings • At least 1 training event per year • CISMA representation in at least 2 public events each year • CISMA website updated at least 2 times per year

Cooperative Invasive Species Management Area (CISMA) Organization Chart and Job Descriptions

Created April 17, 2012, during the annual Florida CISMA workshop

Chair/Co-Chairs

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	CISMA meeting intervals
Benefits	• Recognition • Networking opportunities • Shaping the future • Personal satisfaction • Professional development
Responsibilities	• Schedule and attend CISMA meetings • Facilitate/lead CISMA meetings • Oversee meeting minutes/notes • Sending out meeting notes • Delegate tasks • Coordinate with steering committee • Disseminate information relative to CISMA priorities and activities • Serve as main CISMA contact (e.g. to Florida Invasive Species Partnership, other CISMAs, general public, etc.) • Motivate CISMA membership
Measurable	• Hold at least 2 CISMA meetings per year • Convene at least 2 Steering committee meetings per year • Five year Strategic plan (every 5 years) • Annual report • Annual workplan

Steering Committee member

Term	2 years
Time Commitment	2-6 hours per month in general Additional time may be necessary if specific task is assigned. Steering committee members are asked to attend at least 75% of steering committee and CISMA meetings each year.
Busiest Time of Year	Beginning and end of each calendar year to correspond with developing annual work plan and annual report
Benefits	• Recognition • Networking opportunities • Shaping the future • Personal satisfaction • Professional development
Responsibilities	• Assist with establishing CISMA boundaries • Assist with mission statement • Assist with determining CISMA priorities • Assist with development of CISMA strategic plan and annual workplans • Act as liaison for subcommittees • Assist with goals/projects as able • Assist with creating job descriptions for subcommittee members • Assist with recruiting CISMA positions and CISMA members
Measurable	• Convene at least 2 Steering committee meetings per year • Five year Strategic plan (every 5 years) • Annual report • Annual workplan

Operations Committee chair

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	Varies, but busiest time for partnership control treatments/work days corresponds with best treatment time and non-burning season
Benefits	• Recognition • Networking opportunities • See stuff gets done = Personal satisfaction • Professional development • Learning opportunity on emerging invasive species threats
Responsibilities	• Set and hold meetings of operations committee • Develop committee/recruit committee members • Serve as main contact for reports and issues pertaining to early detection/rapid response (EDRR) species, priority control species, prevention species updates • Facilitate implementation of CISMA strategic plan and annual work plan items pertaining to EDRR, control and prevention • Coordinate surveys and data collection • Coordinate development and implementation of species prioritization protocols • Coordinate and ensure that workdays happen
Measurable	• Annual workplan (specific tasks for EDRR, control and prevention) • Coordinate at least 2 workdays per year • EDRR plant prioritization list • Control plant prioritization list

Outreach Committee chair

Term	2 years
Time Commitment	Approximately 20 hours per month
Busiest Time of Year	Varies, around committee meeting intervals and associated with outreach events (e.g. early March to correspond with National Invasive Species Awareness Week and April to correspond with earth day activities)
Benefits	• Recognition • Networking opportunities • Personal satisfaction • Professional development
Responsibilities	• Set and hold meetings of outreach committee • Develop committee/recruit committee members • Facilitate the development of CISMA outreach materials • Identify media outreach opportunities (e.g. newspaper, TV, radio) • Coordinate attendance of CISMA members at public events in order to promote CISMA and educate about invasive species • Serve a main contact for CISMA webmaster • Assign duties to develop, maintain and update CISMA website (through submission of information to CISMA webmaster) • Ensure that CISMA events are posted on CISMA website calendar • Coordinate CISMA training events • Coordinate with operations committee to maintain current information on CISMA operation activities • Identify volunteers to distribute CISMA information
Measurable	• Hold quarterly Outreach committee meetings • At least 1 training event per year • CISMA representation at in least 2 public events each year • CISMA website updated at least 2 times per year